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FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 181.

REPORT SERIES.

VOL. IV, No. 5.

ANNUAL REPORT OF THE
DIRECTOR

TO THE

BOARD OF TRUSTEES

FOR THE YEAR 1914.

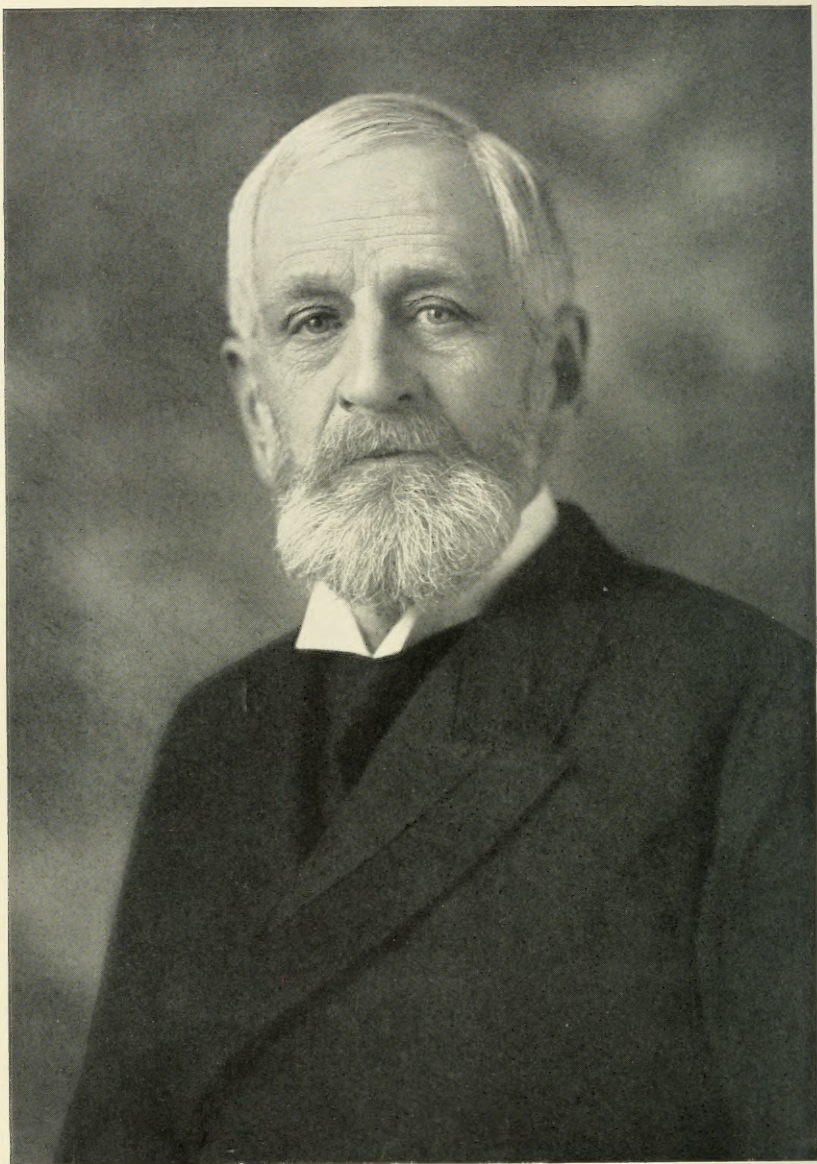
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CHICAGO, U. S. A.

January, 1915.

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THE LATE JOSEPH N. FIELD,
A Benefactor of the Museum.

FIELD MUSEUM OF NATURAL HISTORY.

PUBLICATION 181.

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THE N. W. HARRIS PUBLIC SCHOOL EXTENSION.

S. C. SIMMS, *Curator*.

* Deceased July 6, 1914.

ANNUAL REPORT OF THE DIRECTOR.

1914

To the Trustees of Field Museum of Natural History:

I have the honor to present a report of the operations of the Museum for the year ending December 31, 1914.

The Twentieth Anniversary of the foundation of the Museum was ushered in with an intimation that it was necessary to curtail certain activities in the Institution, in view of the default in payment of interest on certain investments held in the Endowment Fund. There is satisfaction in announcing, however, that this condition is only temporary, for later in the year it was ascertained that the security for the investments referred to was ample to protect the Institution as to both principal and interest. The chief reduction in expenditure was effected by the temporary abandonment of work in the Modeling Sections of the Departments of Anthropology and Botany. It was felt that the postponement of this work would not seriously affect the plans of the Departments involved, and that the resumption of operations might be undertaken at any future time without detriment to the work in hand.

Probably the most important event of the year was the tender to the Board of Trustees of a site for the new Museum building in the reclaimed area south of Grant Park by the South Park Commissioners. It is confidently anticipated that ground will be broken on this site before the date of the next report. Already the greater part of the steel necessary for the construction of the building is on the ground, and of the marble necessary for the exterior of the structure more than one-half has been quarried and cut.

In view of the necessity of retrenchment in the matter of maintenance expenses, it was deemed advisable to discontinue for the present the two lecture courses hitherto given on Saturday afternoons in March and April, and October and November. The fact that there is no hall in the present building to accommodate these lectures, and the further fact that the only suitable auditorium with the requisite seating capacity is situated some seven miles from the Institution, seems to justify the temporary abandonment of this means of public instruction.

The publication of a series of picture postal cards, portraying the various objects and groups installed in the Museum, was inaugurated during the year. The sale of the cards has been encouraging, for over fifty thousand have been disposed of, although they have only been offered for sale a few months. A second series representing forty-two objects and groups in the collections will shortly be published.

The acceptance by Assistant Curator Osgood of the invitation to serve on a United States Government Commission to study and make recommendations regarding the management of the fur-seal herd on the Pribiloff Islands, deprived the Department of Zoölogy of his services for over half of the year. Leave of absence was granted to Curator Dorsey of the Department of Anthropology for approximately one year. At least two months of Dr. Dorsey's time, however, will be occupied in an ethnologic survey of British India in behalf of the Museum. The remainder of the leave granted is for a personal undertaking.

The death of Byron L. Smith, Treasurer of the Museum, in March has to be recorded. Mr. Smith had faithfully served the Museum as Treasurer since its foundation, and as an officer of the Board, a friend of the Institution, and a high-minded public-spirited citizen of Chicago, his loss will be keenly felt. Mr. Solomon A. Smith was elected Treasurer to succeed his father. The death of Mr. Joseph N. Field, a Patron of the Museum, has also to be chronicled, and as a memorial for his generosity to the Museum, the Board of Trustees by resolution have named the hall in which the South Sea Islands ethnological material is installed the "Joseph N. Field Hall." The death of Dr. Seth Eugene Meek in July of this year was a shock to his associates, and is an irreparable loss to the Department of Zoölogy, of which he was Assistant Curator for seventeen years. Dr. Meek's highly valuable services on behalf of the Institution were recognized by the Board of Trustees in formal resolutions adopted on the occasion of his death.

Mr. Carl E. Akeley in performance of his contract completed and installed during the month of December a group of African Buffalo consisting of five individuals. This group which is installed in the South Court keeps fully up to the high standard of excellence exhibited by those previously produced by him. A brief description of this addition to the Museum groups is made elsewhere in this report.

References elsewhere indicate that the activities in the Institution, more especially in the progress of installation, have been fully maintained during the year under review.



THE LATE BYRON L. SMITH,
Treasurer of the Museum Corporation since its foundation.

MAINTENANCE.—The cost of maintenance for the year amounted to approximately \$135,000, which was \$13,000 less than the amount authorized by the Board of Trustees. The total amount expended for all purposes was \$198,600 being \$38,500 less than the previous year. The difference between the cost of maintenance and the actual amount expended is accounted for by special appropriations for the purchase of collections. The necessary repairs to the building were performed by the regular maintenance force.

PUBLICATIONS.—The number of publications issued during the year was seven. These seven comprise parts of five volumes, details of which follow:

- Pub. 173.—Report Series, Vol. IV, No. 4. Annual Report of the Director to the Board of Trustees for the year 1913. 89 pages, 14 half-tones. Edition 2500.
- Pub. 174.—Zoölogical Series, Vol. X, No. 10. An Annotated List of Fishes known to occur in the Fresh Water of Costa Rica. By S. E. Meek. 34 pages. Edition 1500.
- Pub. 175.—Zoölogical Series, Vol. X, No. 11. Four New Mammals from Venezuela. By W. H. Osgood. 7 pages. Edition 1500.
- Pub. 176.—Zoölogical Series, Vol. X, No. 12. Mammals of an Expedition across Northern Peru. By W. H. Osgood. 43 pages. Edition 1500.
- Pub. 177.—Anthropological Series, Vol. XIII, No. 2. Chinese Clay Figures. Part I—Prolegomena on the History of Defensive Armor. By Berthold Laufer. 245 pages, 64 plates, and 55 text-figures. Edition 1500.
- Pub. 178.—Geological Series, Vol. V, No. 1. New Meteorites. By O. C. Farrington. 14 pages, 6 half-tones. Edition 1500.
- Pub. 179.—Botanical Series, Vol. II, No. 10. Contributions to North American Euphorbiaceæ—V. By C. F. Millspaugh. 15 pages. Edition 1500.

NAMES ON MAILING LIST

Domestic	626
Foreign	704
	<u>1,328</u>

DISTRIBUTION OF FOREIGN EXCHANGES

Argentine Republic	12	Bulgaria	1
Australia	33	Canada	29
Austria-Hungary	32	Cape Colony	6
Belgium	18	Ceylon	3
Borneo	1	Chile	2
Brazil	9	China	2
British East Africa	2	Colombia	2
British Guiana	2	Costa Rica	4

DISTRIBUTION OF FOREIGN EXCHANGES — CONTINUED

Denmark	9	Natal	3
East Africa	1	Netherlands	20
Ecuador	1	New Zealand	7
Egypt	2	Norway	8
France	56	Peru	2
Fiji Islands	1	Portugal	5
Finland	2	Rhodesia	2
Germany	138	Roumania	1
Great Britain	120	Russia	18
Greece	2	Salvador	1
Guatemala	1	Sicily	3
India	17	Spain	7
Italy	38	Straits Settlements	1
Jamaica	2	Sweden	15
Japan	9	Switzerland	23
Java	4	Tasmania	3
Liberia	1	Transvaal	3
Malta	1	Uruguay	1
Mexico	18	West Indies	3

DISTRIBUTION OF PUBLICATIONS (FOREIGN) BY SERIES

Anthropological	291	Ichthyological	165
Botanical	373	Ornithological	206
Entomological	160	Report	704
Geological	360	Zoölogical	306

DISTRIBUTION OF DOMESTIC EXCHANGES

Alabama	2	Nebraska	7
Arkansas	1	Nevada	2
California	29	New Hampshire	4
Colorado	11	New Jersey	15
Connecticut	21	New Mexico	2
Delaware	2	New York	87
District of Columbia	66	North Carolina	6
Florida	3	North Dakota	2
Idaho	1	Ohio	20
Illinois	69	Oklahoma	3
Indiana	16	Oregon	1
Iowa	15	Pennsylvania	37
Kansas	6	Rhode Island	5
Kentucky	3	South Carolina	2
Louisiana	4	South Dakota	2
Maine	7	Tennessee	2
Maryland	9	Texas	2
Massachusetts	65	Utah	1
Michigan	13	Vermont	4
Minnesota	9	Virginia	4
Mississippi	4	Washington	6
Missouri	11	West Virginia	6
Montana	2	Wisconsin	17

Wyoming	2	Philippine Islands	3
Cuba	3	Porto Rico	1
Hawaii	5		

DISTRIBUTION OF PUBLICATIONS (DOMESTIC) BY SERIES

Anthropological	232	Ichthyological	151
Botanical	304	Ornithological	160
Geological	313	Report	626
Historical	161	Zoological	266

THE LIBRARY.—The Library contains 64,875 books and pamphlets distributed as follows:

General Library	42,656
Department of Anthropology	3,189
Department of Botany	6,718
Department of Geology	9,181
Department of Zoology	3,131

64,875

There were added during the year 2,639 books and pamphlets. The principal growth has been through gifts and interchange of the Museum's publications with individuals and institutions. Among the important purchases were complete sets to date of the Transactions of the Asiatic Society of Japan; Journal für Ornithologie; Ornithologische Monatsberichte; and Ornis. Through the continued interest of friends a number of valuable publications were received. Mrs. Frank W. Barker, Chicago, presented ten parts of a rare work "The Acropolis of Ancon." Dr. Berthold Laufer, Chicago, a copy of "Epigraphische Denkmäler aus China, Part first" recently published by Dr. Laufer and Otto Franke. Publications were also received from Mrs. F. H. Chalfant of Pittsburgh; Prof. Henry F. Osborn of New York; Sir Thomas W. Northcote of London; Judge Curtis H. Lindley of San Francisco; and Prof. Alexander W. Evans of New Haven. The courtesy of several contemporary institutions enabled the Library to complete sets of their publications. The more noteworthy were: American Geographical Society New York City; British Museum London; Cambridge University, Cambridge, England; Kentucky Geological Survey Frankfort; South Park Commission, Chicago; Museum of Natural History, Marseilles, France; Royal Asiatic Society, Shanghai; Royal Botanical Garden, Edinburgh, Scotland; Royal Museum of Bohemia, Prag; Senckenbergische Naturforschende Gesellschaft, Frankfurt-am-Main; Zoological Institute, Strassburg; Royal Society of Tasmania, Hobart; National University of La Plata, Buenos Aires. The books and periodicals bound during the year number 504. As routine work permits, the opportunity is being improved to make a

more careful and extended analysis of many sets of periodicals. There have been written and filed in the catalogues 21,000 cards. Twelve installments of the John Crerar Library library cards have been received and alphabetically arranged in the catalogue. During the summer months the Stack Room was thoroughly cleaned, and a complete rearrangement of the books made. A discarded exhibition case was fitted with shelves and converted into a temporary bookcase.

DEPARTMENTAL CATALOGUING, INVENTORYING, AND LABELING.—The catalogue cards prepared by the Department of Anthropology during the year numbered 2,825, distributed as follows: Archæology, 401; Melanesian Ethnology, 1,374; Asiatic Ethnology, 1,050. These cards with the addition of 1,885 from the preceding year make a total of 4,710 that have been entered in the inventory books of the Department. Of the cards relating to American archæology some have not as yet been turned over to the cataloguer, being retained for further reference in connection with the installation of the material which they record. The number of accessions for the year is 26, of which 25 have been recorded in the inventory. The volumes of inventories number 37. The labels printed for the Department during the year number 3,045, of which 621 were for the Melanesian division, with the addition of 135 prepared for the Fiji collection by Assistant Curator Cole, 22 for American Ethnology and over 2,000 for the Division of Asiatic Ethnology. The photographic prints prepared for the Department were classified and arranged in albums, of which 11 volumes were added to the series, 9 containing photographs of Chinese and 2 of Tibetan specimens.

The Curator of Botany reports the preparation of 650 labels. Of these all that have been printed have been placed against the objects installed. The complete card catalogue of all the collectors and geographic regions represented by specimens installed, containing over 12,000 cards, has been finished and arranged in a new and readily referable steel index case. This catalogue is unique and of the greatest value not only to students of the world of plants, but to the efficiency of the Department itself. The work of inventorying the specimens organized has been kept up to date, 7,521 entries having been made during the year, making the total number of entries 412,486.

The material catalogued in the Department of Geology during the year included 590 mineral specimens, 355 economic specimens, and 364 miscellaneous. A total of 2,138 labels was prepared during the year, of which 891 have been printed and distributed. The most important series of these was that for the meteorite collection, the number made for that purpose being 1,003. These labels show for each specimen the classification of the meteorite, the locality of the fall or find, date



EAST AFRICAN BUFFALO (*Syncerus caffer rudolfensis*).
C. E. Akeley, Taxidermist.

of fall or find, the weight of the specimen and its catalogue number. A large number of miscellaneous labels in addition were prepared relating mostly to material received during the year. Several of these labels were descriptive. Some of the series thus labeled include the asphalt collection, a part of the petroleum collection, the collection of Japanese volcanic material, the amber collection, a series of mammoth and mastodon teeth, and about 200 miscellaneous specimens of minerals. The descriptive labels in Higinbotham Hall were provided with white frames corresponding in color to the interior of the cases in order to give a more attractive appearance to the installation.

In the Department of Zoölogy cataloguing and labeling of specimens was continued as usual. In the various inventory books all new material received from Museum expeditions during the year was promptly entered as soon as the specimens were identified, and also card-catalogued. Some rearrangement in the mammal and bird collection has been made, and the revision of old labels continued. The work of rearranging and transferring the exhibition collection of shells to new cases was commenced and about 2,500 specimens were placed on newly prepared tablets and a new arrangement of labeling adopted. Under the supervision of Assistant Curator Gerhard the entire time of one assistant was devoted to this work. The preparation of labels for the shells to be installed in the new cases is now progressing. The entire collection of humming-birds, including about 400 species and subspecies, was rearranged in new trays and properly card-catalogued, and labels for specimens of reptiles, fishes, and crustaceans, placed on exhibition during the year, have been prepared and installed. The large mammal skins stored in the basement of the Museum have been rearranged, listed, and catalogued in such a way that they are now readily accessible for quick reference.

The following table shows the work performed on catalogues and the inventorying accomplished:

	No. of Record Books	Total No. of Entries to Dec. 31, 1914	Entries During 1914	Total No. of Cards Written
Department of Anthropology	37	131,240	4,710	133,606
Department of Botany	57	412,486	7,521	.....
Department of Geology	21	129,345	1,309	7,705
Department of Zoölogy	40	94,160	2,255	30,045
The Library	14	96,890	1,025	185,692
Section of Photography	15	110,827	3,599	.....

ACCESSIONS.—The majority of accessions credited to the Department of Anthropology for the year have been made possible through the generosity of friends. The collection of classical archæology has

been increased by two gifts of Mr. Edward E. Ayer — a large Etruscan bronze vessel with chain handle and a small variegated glass bottle from Egypt. Two other Italian bronze cistas of the third century B. C., acquired by Mr. Ayer in Rome, were purchased by the Museum. These specimens belong to a type now very scarce, and seldom, if ever, offered for sale on the market. A diorite statuette of a woman from Egypt, of great artistic beauty, likewise obtained by Mr. Ayer, was secured through exchange. The section of North American archaeology received from Mr. F. Schrott a flaked knife-blade of chert, and from Mr. Clarence B. Moore of Philadelphia an assortment of archaeological material. Fifty arrowheads and two stone axes from Rock Hall, Maryland, were secured through exchange with Mr. George C. Roberts. To Mr. Homer E. Sargent the Department is indebted for an ancient gold ring from Mexico which has been added to the exhibits of American gold jewelry in Higinbotham Hall. Dr. W. S. Lowe, Phoenix, Arizona, presented several sections of cane stem, some wrapped up with a small cotton fabric, found under a ledge of rock in the Camelback Mountains, fifteen miles northeast of Phoenix, and to have served as an offering. American ethnology has been enriched by a gift from Mr. Richard G. Ellis, consisting of a rawhide lariat, wooden bow with skin case, a stone celt, and a stone disc; and by a gift from Mrs. Frank A. Devlin of Chicago, comprising three finely carved cups of pod from Costa Rica (modern) and two prehistoric pottery vessels from the same locality. The following acquisitions from Assistant Curator Owen's recent expedition to Arizona have been added: three finished two-faced Navaho blankets, and one in the loom during the process of working, two-thirds being finished; specimens of yarn, and implements used in weaving. Mr. Cleaver Warden, Carlton, Oklahoma, presented the Museum with a peyote outfit of the Arapaho. Mrs. Frank W. Barker of Chicago presented the Museum with a miscellaneous lot of 17 objects from Italy, Egypt, India, northwest coast of North America, Hawaii, and Micronesia. The following gifts were received by the section of Asiatic Ethnology: a rhinoceros-horn presented by Mr. F. W. Kaldenberg of New York; a Japanese gold piece (10 yen), and a Japanese rectangular silver coin from Mrs. T. B. Blackstone; three printing-blocks from the Examination Halls of Nanking from the Curator; an interesting mariner's compass, enclosed in a copper case, from Mr. Thomas Mason. Three paintings representing polo matches, one album with 25 flower-pieces painted on silk, and another containing an Atlas of Hunan Province with sixteen hand-painted colored maps, were presented by Dr. John R. Taylor, in recognition of services rendered him in the identification of his collection

of Chinese paintings. The most important gift accessioned during the year are two exquisite silk-embroidered hangings presented by Dr. F. W. Gunsaulus, who has always evinced a keen and generous interest in the work of the Museum. These specimens were made in the Imperial Atelier for use in the Palace, and are classical examples of the marvelous skill attained by the Chinese in art needlework. They have been placed on exhibition in special wall-cases in Hall 45. The Museum is further indebted to Dr. Gunsaulus for two Japanese water-colors, framed, one illustrating the pounding of tea-leaves preparatory to the tea-ceremonies, the other showing a woman engaged in painting. Three notable acquisitions for the Chinese Collection were effected by purchase. The generosity of Mrs. T. B. Blackstone enabled the Museum to secure a famous collection of ancient Chinese coins, 690 in number. This numismatic collection is of intrinsic scientific value, including, as it does, many rare and unique ancient specimens; particularly it abounds in those earliest forms of currency, bronze-cast sham-implements, like knives, axes, spades, bells, etc., which are of specific archæological interest in permitting a study of the development of these ancient utensils. Mr. Chalfant, the collector, unfortunately met a premature death on January 14th, at the age of 52; his collection of ancient bone carvings, reference to which was made last year, and the coin collection in question, remain the most enduring monument of his fruitful activity and his serious aspirations. Mr. Chalfant had spent the last seven years of his life on the decipherment of the inscriptions on these bone carvings and left a voluminous manuscript on this work in two quarto-volumes. Mrs. Chalfant has placed this manuscript with others in the trust of Associate Curator Laufer, with the request that he take charge of the publication thereof. Two nephrite tablets from an imperial jade book, the one inscribed in Manchu, the other engraved with a pair of dragons, were purchased from Mr. Hackett. Through the services of Mr. W. W. Simpson, an American missionary in Taochow, Kansu, China, the Museum succeeded in obtaining the seal and grant conferred upon the Taochow Lama Temple by the Emperor K'ang-hi in 1713. When Dr. Laufer secured the remaining spoils of this temple at the time of his sojourn at Taochow in 1910, it was impossible to get hold of these documents, as the abbot of the monastery is not permitted to part with them without the sanction of the high Church Dignitaries of Lhasa. Word was accordingly left with Mr. Simpson, requesting him to arrange for this transaction, which is now felicitously concluded. The large, square seal is carved from wood surmounted by the figure of a standing lion which serves as a handle; the K'ang-hi date-mark is engraved on the top. The grant is written

out in Tibetan on imperial yellow silk, which has dragons and other designs woven in, and is stamped with numerous seals. These unique objects naturally are of principal value to the Museum, inasmuch as they furnish substantial evidence for the fact that all treasures in its possession from the Lama Temple in question were indeed turned out during the K'ang-hi era (1662-1722) and prior to the year 1713.

In the Department of Botany considerable valuable material for exhibition purposes has been received. The Chicago Varnish Company has presented a very complete and valuable collection of 344 characteristic specimens of natural varnish gums, many of them the largest, clearest, and most typical examples of their kind known. These have been fully labeled and installed in two cases, accompanied by tubes of varnishes made from each class of gum exhibited. From the Philippine Bureau of Education a series of 147 typical fibers and objects utilizing the same have been received and installed among other objects belonging to the various families of plants they illustrate. Dr. Laufer has presented the Department with several characteristic specimens of "brick Tea" and of paper and raw material illustrating Chinese paper made from Derge roots. The U. S. Bureau of Plant Industry has sent in 168 specimens of crude drug substances that will serve to fill many gaps in the systematic exhibitions of plant products. The U. S. Forest Products Laboratory has contributed, in exchange, 44 examples of wood-paper pulps and papers made therefrom. The Forest Economist of India has presented 19 valuable forest products of India that assist greatly in the representation of the economics of several plant families, and the Section of Modeling, during the last month of its labors, turned over 7 models of desmid species; 9 models of diatom species; a full-size reproduction of a leafy, fruiting branch of the Horsechestnut tree; a full-size reproduction of a flowering twig of the same; a full-size reproduction of a pandanus fruit, a chocolate fruit, cakes of manufactured chocolate, and several sections of the fruit of Connarus. The important additions to the herbarium during the past year comprise the following: The private herbarium of Mr. Geo. F. Curtiss, consisting of ferns of central North America, presented by Miss E. Curtiss; the private herbarium of Miss Carrie A. Reynolds, consisting of plants collected in northwestern North America, presented by herself; the private herbarium of Mr. C. W. Dusener, consisting of plants collected locally in Illinois and Indiana, presented by himself; and the following: Abbon, Mexico, 70; Adole, Mexico, 106; Arsene, Mexico, 689; Britton, Cowell & Shafer, Vieques Isl., 72; Britton and Shafer, Porto Rico, 217; Curacao, 51; Britton, Stevens & Hess, Porto Rico, 78; Broadway, Tobago, 56; Buchtien, Bolivia, 201; Cowles, northwestern North Amer-

ica, 1,240; Curtiss, Jamaica, 136; Elmer, Philippines, 863; Flora Exscicc. Austria-Hung., 310; Harris, Jamaica, 107; Heller, California, 169; Nevada, 242; Lansing, Illinois, 207; Macoun, Ontario, 48; Vancouver, 124; Millsbaugh, Michigan, 68; Natal Botanical Gardens, South Africa, 101; Nicolas, Mexico, 120; Pennell, Gerardia, 56; Purpus, Mexico, 408; Huron Smith, Illinois, 160; Visser, South Dakota, 51; Tonduz, Costa Rica, 55; Wenzel, Philippine, 146; and Wood, Natal, 95.

	Added to Herbarium 1914.	Total now in Herbarium.
ALASKA:		
Coronation Island	1	1
CANADA:		
British Columbia	5	1,017
Nova Scotia	5	382
Cape Breton Island	1	28
Sable Island	2	37
Ontario	51	675
Prince Edward's Island	1	12
Quebec	36	181
Ungava	2	62
Vancouver Island	132	710
Newcastle Island	3	3
Brandon Island	1	1
Yukon	1	70
UNITED STATES:		
Alabama	4	1,337
American Plains	7	219
Arizona	6	9,448
Arkansas	5	422
California	186	24,040
Carolina, North	17	4,574
Carolina, South	22	1,035
Colorado	6	11,787
Connecticut	14	555
Dakota, South	51	1,093
Delaware	5	1,593
District of Columbia	21	2,373
Florida	23	20,716
Big Pine Key	2	2
Georgia	8	4,562
Illinois	412	21,052
Indiana	45	5,908
Iowa	1	1,762
Kansas	7	506
Louisiana	14	1,296
Maryland	28	1,107
Massachusetts	62	3,184
Michigan	72	4,003
Minnesota	1	1,599
Missouri	5	3,020

	Added to Herbarium 1914.	Total now in Herbarium.
UNITED STATES:		
Nebraska	1	414
Nevada	245	1,256
New Hampshire	5	1,486
New Mexico	8	2,961
New York	11	6,057
Pennsylvania	16	10,861
Rocky Mountains	4	1,395
Tennessee	5	1,457
Texas	56	9,764
Virginia	30	4,703
Vermont	15	2,675
Wyoming	1	930
CENTRAL AMERICA:		
Canal Zone	2	53
Costa Rica	59	611
Guatemala	5	2,886
Honduras	2	343
Mexico (in general)	1,469	35,738
Yucatan	1	4,691
Nicaragua	4	92
Panama	10	71
San Salvador	1	24
WEST INDIES:		
Anegada	3	26
BAHAMAS:		
Andros Island	3	1,732
Crooked Islands	4	335
Inagua	3	443
Bermuda	7	657
Cuba	11	9,778
Hayti	1	305
Jamaica	308	7,388
Porto Rico	586	4,586
Culebra Island	1	221
Desecheo Island	7	7
Mona Island	24	24
Vieques Island	75	75
St. Thomas	1	621
Santo Domingo	1	1,379
Tobago	57	570
Trinidad	4	482
SOUTH AMERICA:		
Bolivia	202	3,715
Venezuela	1	1,064
Curaçao Island	51	93
Peru	39	129
Colombia	1	2,424
British Guiana	4	75
Brazil	3	513

	Added to Herbarium 1914.	Total now in Herbarium.
EUROPE:		
Austria-Hungary	55	7,067
Bulgaria	1	2
England	2	681
France	16	4,540
Germany	33	7,131
Greece	5	530
Italy	9	2,500
Mediterranean Islands:		
Corsica	2	54
Sardinia	1	8
Sicily	14	124
Poland	1	49
Portugal	3	14
Russia	7	1,600
Roumania	1	31
Servia	1	125
Spain	2	141
Switzerland	1	2,615
AFRICA:		
Canary Islands	1	47
South Africa	16	1,259
Cape Colony	3	84
Natal	89	750
Zululand	11	160
ASIA:		
Borneo	1	8
China	1	324
Mongolia	1	2
India	1	1,038
Java	1	102
Siberia	1	430
OCEANIA:		
Australia:		
New South Wales	1	526
Victoria	6	494
Sandwich Islands	3	465
Horticultural	28	2,650
Illustrations, Drawings, etc., mounted as herbarium sheets	233	1,245

In the Department of Geology a number of accessions have been received by gift, many of which are of unusual value. The most important of these is a skeleton of the American mammoth formerly belonging to the Chicago Academy of Sciences, which was presented through the generosity of Mr. George Manierre. This skeleton was, until recently, the only mounted skeleton of a mammoth on exhibition in America, and it still remains one of the most nearly complete and important. The skeleton was found in 1878 in Spokane County,

Washington. Owing to its fragile nature and the probability that it might not remain long in the present Museum building, it was decided not to remount the specimen at this time, and it has not, therefore, been placed on exhibition. A valuable collection of minerals, with some fossils, the whole numbering about 300 specimens, was received from Miss E. Curtiss. Many of these specimens were of exceptional beauty and rarity. A somewhat similar, though smaller, collection numbering 48 specimens was received from Harold Wegg. It was chiefly valuable for its series of Mazon Creek fossils. Two large specimens of fossil logs, collected by Prof. R. D. Salisbury on his recent trip to Patagonia, were received during the year and made an appreciated addition. From Mr. Charles Winston eight exceptionally fine specimens of Carboniferous plants from Pennsylvania and Rhode Island were received. Some of these were of importance as having been cotypes of Lesquereux and all are large and well-preserved specimens. Two excellent specimens of fossil glass sponge, *Hydnoceras bathense*, in group form were generously presented by the New York State Museum. An excellent specimen of fossil fish from Wyoming was presented by Mrs. E. F. Goodall. The skull of a Bison, found in an excavation near 67th Street, Chicago, was presented by Thomas Farley. This is one of few occurrences known showing the distribution of the buffalo in this vicinity. D. S. Renne, Verona, Illinois, presented two large specimens of septaria, which are interesting specimens of this type. From the Dolese & Shepard Company were received two excellent specimens of *Orthoceras* found near Chicago. Besides the above a number of specimens of economic interest were received through the kindness of donors. Among these may be mentioned six specimens of gold and silver ore from San Bernardino County, California, presented by Dr. T. A. Dumont; 27 examples of minerals and ores from Montana, presented by Mr. J. E. Strawn; 15 specimens of gold ore from the Bella Mañaña Mine, Tlatlaya, Mexico, from William Brockway; 10 specimens illustrating the manufacture of tungsten lamps, from the General Electric Company; two specimens of platinum and gold ore from the Boss Gold Mining Company of Nevada; three specimens of vanadium ore from the American Vanadium Company; 46 specimens of asphalt and its products and two large photographs of Trinidad Lake, from the Barber Asphalt Company, and 11 specimens of coal tar and its products from the Barrett Manufacturing Company. Dr. F. C. Nicholas presented a series of instructive specimens, which represented ores and lavas of Sonora, Mexico, and Messrs. L. V. Kenkel and H. V. Guild about 150 specimens of fossils and minerals from Idaho. In response to a number of requests sent to producers of building stones and marbles,



SKELETON OF MAMMOTH (*Elephas Columbi*) FROM SOUTHERN WASHINGTON.
Gift of Mr. George Manierre. (To be remounted.)

a number of cubes and marble slabs were added to the building stone collection, making it more representative than formerly. Twenty-one specimens were received from these donors. By exchange a number of important specimens were received, the most important being a large and complete skeleton of the European Cave Bear from Austria. This and a skull of the fossil whale (*Zeuglodon*) from Egypt were received from Dr. F. Krantz. From the University of California there was received by exchange a practically complete skeleton of the sabre-tooth Cat from the Rancho la Brea beds of California. From Grebel, Wendler & Company there was received a fine series of Brazilian phenacite crystals, numbering 21 specimens. From Mr. George S. Scott of New York City were received by exchange 14 specimens of various minerals; from Prof. H. B. North of Rutgers College, 8 specimens of pseudomorphs after marcasite; and from the Royal Ontario Museum, Toronto, three large polished specimens showing the occurrence of the silver and nickel ores of Cobalt, Ontario. By purchase the Bishop Canyon meteorite was obtained entire; also the Scott City meteorite, nearly complete, and a large etched section of the Mount Edith, Australia, meteorite. Other purchases included: 163 specimens showing varieties and modes of occurrence of German amber; an interesting series, numbering 42 specimens, showing products of the eruption of the volcano of Sakurajima, a specimen of a "bread crust" bomb in this series being of especial importance; a large specimen of *Orthoceras*, measuring six feet in length; a series of models of diamonds cut from the Cullinan diamond; and 11 teeth and two tusks of a young mastodon.

The Curator of Zoölogy reports that an important addition to the Entomological collection was received from Dr. William Barnes of Decatur, Illinois, who presented to the Museum a collection of about 3,500 moths, which are in fine condition and many of them will ultimately be used for the exhibition collection. Miss Elizabeth F. Curtiss also presented to the Museum a collection of butterflies containing some 1,700 specimens, which may supply some material for exhibition purposes. A rare species of Sphinx Moth (*Trogolegnum pseudambulyx*) from Mexico, a gift from Mr. B. Preston Clark of Boston, was new to the Museum collection. The mammals and birds received from Museum Expeditions were of much scientific value and contained several new forms, which are being studied and will be the subjects of papers now being prepared for publication. The most important donation received was that of 26 large mammals and 3 birds from East Africa, presented by Mr. Brent Altsheler of Louisville, Kentucky. The collection consisted of 3 Ostriches, 4 Impala Antelopes, 1 Hartebeest, 2 Waterbuck, 1 Wart Hog, 2 Elands, 1 Lioness, 3 Grant's Gazelle, 3

Oryx, 2 Dik Dik, 1 Klipspringer, 4 Gerenuk, 1 Buffalo, and 1 Jackal. Mr. E. B. Williamson of Bluffton, Indiana, presented a number of birds during the year, and his continued interest is much appreciated. Judge R. M. Barnes of Lacon, Illinois, presented a body of the rare Trumpeter Swan. An albino crow was purchased. The Osteological collection was enlarged by 445 skulls cleaned for the study collection, and 5 skeletons were prepared and installed in the exhibition collection.

EXPEDITIONS AND FIELD WORK.—At the beginning of the year the Museum had two zoölogical collectors in the field: Malcolm P. Anderson in Venezuela, and Robert H. Becker in Brazil. In January Mr. Anderson proceeded to Peru and worked in high altitudes in the Andes Mountains east of Chimbote, later going to Lake Junin (altitude 14,000 feet). After leaving Lake Junin May 7th, he spent a month collecting in the vicinity of San Ramon on the Rio Chanchamayo, and sailed for home early in June. While Mr. Anderson secured valuable material, the specimens were less in number than could have been expected, owing largely to a series of unfortunate accidents. In January, Mr. Becker proceeded from Rio de Janeiro, Brazil, to Lagoa Santa in the State of Minas Geraes, where he made an important collection of birds and mammals. He then proceeded up the Rio San Francisco to Barra, and from there pushed on up the Rio Preto to and beyond Formosa, a small native town in a very little known region in the interior of Brazil. This country has not been worked by collectors, and it is unfortunate that after surmounting difficulties in reaching there, his stay had to be limited to two weeks. Interesting mammals and birds were secured, some of which are new and will be the subject of a publication in due time. Coming down the Rio Preto on a raft, which he built, Mr. Becker reached Barra safely, and from there went on to Bahia and took a steamer to Trinidad, where he had been directed to secure material for a group of Oil Birds (*Steatornis caripensis*). The birds, eggs, nests, and accessory material were obtained, also photographs of the caves in which the birds live, and the group is now in process of construction.

INSTALLATION, REARRANGEMENT, AND PERMANENT IMPROVEMENT.—A most encouraging feature of the work performed in the Department of Anthropology during the current year is that, despite the reduction of the force rendered necessary in January, the progress of installation has been fully maintained to a remarkable degree, and, in fact, the work in every line of activity has been pursued with energy and devotion. A total of 70 new cases has been placed on permanent exhibition, all fully and completely labeled. The material installed in these cases is distributed as follows: Southwest Ethnology, 5 cases; New Hebrides, 12

cases; Admiralty Islands, 12 cases; Fiji, 8 cases; Chinese, 19 cases; Tibetan, 14 cases. As regards American ethnology, one case of Apache medicine shirts, one case of painted buffalo hides, two cases bearing on Paiute ethnology from California and Nevada, and one case of Pima storage baskets have been added to the Southwest Section, under the personal supervision of Assistant Curator Owen. Hall 8 has been cleared of nine cases of Borneo, three of Andaman and Nicobar, and one of Malay Peninsula material, these thirteen cases being stored indefinitely with the great number of installed cases already on the floor of the East Court. As Halls 2 and 3 have recently been devoted to the exhibition of New Hebrides, Admiralty and Fiji ethnology of the Joseph N. Field Collections, this arrangement resulted in the necessity of removing the following cases for storing in the East Court: three Sauk and Fox, one Iroquois, one painted buffalo hides, two Apache, two Warm Springs, three Shoshoni, one Klikitat, one Yakima, two Ute, two Wasco, one Comanche, one Bannock, one Kutenai, one Umatilla, and two Nez Perce. More than ninety boxes containing the Stanley McCormick Hopi material have been unpacked in Hall 16. The material has been classified and placed temporarily in new cases and storage bases, awaiting permanent installation with the exhibits of Hopi ethnology which, for the past fifteen years, have been displayed in Halls 15, 16, and 17. In Hall 17 the Hopi Home Case has been completely overhauled, the clothing renovated, and the five life-size figures repainted. Nine altar cases in the same Hall have also been subjected to a most careful and thorough examination and readjustment.

Peruvian pottery, particularly from Chancay, and Egyptian tomb tablets have been properly treated and cared for to insure their preservation. About 400 photographs which had been stored in Hall 48 for many years have been identified as belonging to about thirty tribes, and each lot has been placed in the cases where the respective tribal group is represented. Many of these prints, varying in character and quality, show scenes no longer obtainable, and before being permanently installed in the various cases, should be copied on permanent paper for exhibition purposes, while the old solio prints may be preserved for the Department albums.

During the year Assistant Curator Lewis has installed thirty-two cases of Melanesian material. These, with cases installed towards the end of the previous year, include the collections from Fiji, the New Hebrides Islands, and the Admiralty Islands. Assistant Curator Cole coöperated with Dr. Lewis and superintended the installation of the material from the Fiji Islands, which fills seven cases, illustrating the clothing and ornaments, household utensils, weapons, and various

industries of the natives. The manufacture of tapa, an industry common throughout the whole of the South Seas, is well illustrated by numerous specimens of the implements used in the process, as well as by a great variety of finished product. Fourteen cases of New Hebrides material make an exhibit fairly representative of the culture of these islands, many of which have now almost completely lost their original features. The collections are most complete from Malekula, the largest and least known of the whole New Hebrides group. In this island alone over twenty languages are spoken, and the culture is by no means uniform. The collection illustrating the ceremonial and religious life of this people,—consisting of carved images, masks, prepared skulls, and figures of the dead,—is unusually complete. The various types of weapons employed by the tribe are also well illustrated, though many forms still remain to be represented. The Admiralty Island collection now occupies fourteen cases, while a considerable portion of it is not yet placed on exhibition. This collection is notable for the wealth in objects characteristic of the high degree of skill reached by these people in wood carving and decorative art. Particularly striking are the huge drums, finely carved food-bowls, some of them four feet in diameter, decorated wooden beds, and numerous carved images of various sizes,—all manifesting a well-developed artistic sense. There are several series showing the variations of design from realistic to conventional and geometrical stages, such as displayed by the forms of decorations on spears, daggers, and combs. Interesting groups of decorative elements are also seen in their personal ornaments, among which are included over 300 breast ornaments of shell and tortoise-shell, all different in decorative design despite the uniformity of type, and presenting excellent source-material for the study of variability of ornamental forms. There is also shown an extensive series of shell-bead dancing-aprons, which are rare. The process in the making of these shell beads is illustrated by numerous specimens in the consecutive stages of the work. Methods of fishing, including that of fishing by means of flying kites from canoes, which is restricted to a few localities, and the manner of preparing articles of food, are likewise shown, together with models of various types of canoes. Worthy of particular mention are the four remarkable feather masks from Hansa Bay, New Guinea, presented by the late Mr. Joseph N. Field, and now placed on exhibition in the East Court. The Melanesian collections, thus briefly outlined in their main contents, have been assembled in Halls 2 and 3, which were thrown open to the public in the beginning of November. In addition to the installation and labeling of cases, much work has been accomplished by Assistant Curator Lewis in overhauling and sorting

out the different collections from other parts of Melanesia already in the Museum, many of which had not been catalogued. This cataloguing is now being pushed on with energy, and approximately 900 specimens of the Parkinson collection, as well as a few other small collections, have been entered and numbered.

In the Asiatic Section installation has progressed steadily. Two large special cases designed for the Chinese stage-scenes were delivered in January, and all material and labels relating to these exhibits having been fully prepared in advance, their installation was achieved without delay. This completed the exhibits of Hall 53, which is now entirely devoted to a display of Chinese theatricals. Moreover, two new Halls have been added this year to the existing six, referred to and described in preceding Reports, and made accessible to the public. The Tibetan collection secured under the auspices of the Mrs. Blackstone Fund has received a further extension in Hall 50, which consists of 12 cases illustrating the domestic, social, and religious life of the Tibetan people in the following phases: objects used in the household; consumption of food, including articles of food, as well as the utensils serving for their preparation; consumption of tea; consumption of spirits and tobacco; basketry; ceremonial silk scarves exchanged by people in social intercourse; writing and printing; charms and domestic art; musical instruments, censers and other objects, and paraphernalia employed in the temples for religious worship. The case illustrating the process in the production of paper and books is of great culture-historical interest; it forms a counterpart of the case arranged two years ago and displaying the arts of printing and engraving in China and Japan. It contains exquisite specimens of Tibetan manuscript work written in gold and silver on black-lacquered paper, manuscripts illuminated by colored miniatures, in which the Lama scholars excelled as successfully as the mediæval monks, and fine samples of Tibetan and Mongol prints; especially notable are some books printed in vermilion in the Imperial Palace of Peking (so-called palace editions), and one of the largest and heaviest books ever turned out (93¼ pounds in weight; pages measuring 2 feet 10½ inches in length and 14½ inches in width). The case, further, contains an interesting autograph written in vermilion ink by the Dalai Lama with his own hand and transmitted by him to Mr. Laufer for presentation to the Field Museum when he had an interview with him at Peking in 1908; there is also on view an attractive series of seals with wax reproductions of their inscriptions, writing-utensils, and appliances of the printer. Hall 49, which had served during the last years as a storage-house for the East-Asiatic material and as the basis of operation to prepare and catalogue it, has been

entirely cleared, as it is planned to utilize this room for the continuation of the Tibetan exhibits, which will comprise means of transportation, saddlery, industries, costumes, jewelry, painting, and the culture of the Tibetan nomad tribes. Owing to this arrangement it was made possible to relieve the congestion prevailing in the East Court by transferring 24 new cases to Hall 49. A Tibetan coracle and the trappings of a horse, shown on a papier-maché model, are already installed in this Hall.

Much time was consumed on the final installation of the large collection of Chinese stone sculpture. The pieces are of great dimensions and heavy in weight, and required drilling of their bases to secure solid and permanent intrenchment on the shelves. The material is installed in 12 two-foot cases, eight of which have been placed in the Rotunda of the East Annex, Hall 58, which seemed to offer the most suitable location. In order to make the best use of the available space, the principle of concentric arrangement has been adopted, the centre being occupied by a small special case sheltering an octagonal pillar inscription of the T'ang dynasty,—an important historical document which records the capture of the city of Taochow in Kansu Province through the Tibetans in the eighth century. From this centre radiates the collection of sculpture with an inner ring of four cases arranged in a square, and fortified by an outer ring of four others, flanking the niches. The distribution, balancing, and classification of the material in the cases proved a task beset with no small difficulties, partially due to the difference in bulk and weight of the single sculptures, partially owing to the repetition of the same types through the various periods of Chinese history. A chronological principle and simultaneously one according to religious types and subjects has been brought into effect. The collection well demonstrates the development of Chinese sculpture in its total range from the fourth to the eighteenth century, embracing the two religions of Buddhism and Taoism. Three main chronological divisions have been established: the early or pre-T'ang period, fourth to sixth century, mediæval or T'ang period (618-906), and the retrospective modern or after-T'ang epoch. The assemblage of ancient Taoist sculpture is probably unique and exceptionally rich in beautiful statues of the Supreme Deity of the Taoist pantheon; it fills two cases which have been added to the Taoist section in Halls 46 and 47,—one of these harboring in addition tombstones and inscription tablets of the T'ang period. A goodly number of Taoist sculptures has been incorporated in the Buddhistic department, in order to bring out the idea of the dependence of Taoist on Indian-Buddhist art and the interrelations of the two religions. As regards the exhibits of Buddhist statuary, the general scheme of division followed is: the Buddhas, the



ITALIAN BRONZE CISTA, THIRD CENTURY, B. C.

Bodhisatvas, and the clergy, under each of the three chronological epochs. One case is entirely devoted to the portrait-statues of Buddhist monks from the T'ang period to the present, as in this manner a most striking phase in the religious and mental development of China is very forcibly impressed upon us. Nothing could better illustrate the ennobling influence of Buddhism on Oriental society and its lofty intellectual aspirations than these portraits of religious leaders with their refined and spiritualized features, and their sermon of salvation. It should be said that the present condition of the Halls does not permit of adherence to a rigidly scientific system of classification of these exhibits.

In the Department of Botany cases representing the following economic exhibitions have been installed and fully labeled during the year: four case units of Varnish Gums; one case unit illustrating the Cycad family and its products, especially its starch roots and starches; one case unit containing the Gingko and the Yew families and their characteristic fruits and utilizations; a case illustrating in complete groups the Bacteria and their life history, the Diatoms and their methods of reproduction and growth, the Desmids and their life characteristics, and the unicellular Algæ; a case illustrating all the phases in the life history of the Marchantiaceæ; one unit case containing the Morning-glory family and characteristic products; three case units of the Rubiads and their products, including an interesting reproduction of the plant known as the "living ant's nest"; one unit case illustrating the products of the Maple family; a unit devoted to the fruit of the Coco-de-mer palm and the uses to which it is put; one unit case each comprising the products of the Milk-weed and the Horsechestnut families; a case containing both the Passionflower and the Benzoin families and their utilized products; two units exemplifying the various uses supplied by the Ferns; three units devoted to the Grass family, especially the fibers yielded by various species; one case each exemplifying the characters and uses of fibers yielded by the Screw-pine, the Sedge, the Palm, the Eel-grass and Banana families; one case exemplifying the botany and products of the Snakeroot family; one case containing both the Elm and the Protead families; one case containing new products of the Fig family; two unit cases devoted to the fruit characters, and various useful products of the Sumach family; one case devoted to the products of Yam and the Iris families; a case containing various characters and useful products of the Coca family; one case illustrating the Lignum-vitæ and the Quassia families; one unit case showing the products of the Mahogany family; two units devoted to the Connarus and the Bean families; one case comprising the characters and useful materials yielded

by the Buttercup and the Akebia families and another the Barberry and the Moonseed families; and three cases representing the botany and products of the Monkey-pot and the Pomegranate families.

In the Department of Geology two large mounts have been installed in Hall 36. One of these is the large *Leptomeryx* slab described in last year's report. This has been installed in a floor case of standard type, $7\frac{1}{2} \times 4\frac{1}{2}$ feet in size, in which it makes an effective and attractive exhibit. The other large mount installed is a skeleton of a Cave Bear from Triest, Austria, which has been placed in a temporary case. The skeleton is remarkable for its large size and completeness. In connection with the installation of these mounts some rearrangement of the other cases was made. There were also added to the exhibition series of fossil vertebrates a skull of *Aceratherium* and one of *Ancodon*, complete skeletal fore and hind legs of the fossil camel *Oxydactylus* and a skeletal hind leg of *Alticamelus*. The two large fossil logs from Patagonia, collected by Professor Salisbury, have been installed in this Hall. One of these logs is eight feet in height and two feet in diameter and the other is nearly as large. The structure of the wood is beautifully preserved and the evidences of former tree growth are so unmistakable as to make them impressive specimens. The large slab of *Uintacrinus*, which has for some time been exhibited in this Hall, was found to be undergoing considerable disintegration owing to imperfect adherence of the slab to the plaster backing. It was therefore taken down, the thin exhibition surface removed and carefully scraped and readjusted. This was then remounted on a firm plaster bed. By this means a permanent adherence of the slab to the plaster has been obtained and a durable and attractive mounting achieved. In Hall 32 the large specimen of *Orthoceras* from Troygrove, Illinois, and a number of smaller specimens were installed and some minor rearrangements made. In Hall 30 a series of models showing the diamonds cut from the Cullinan diamond has been placed in connection with the model of that diamond. In the same Hall a large number of mineral specimens have been added to the series on exhibition, less important specimens having been removed wherever necessary to provide room. The series added includes a number of new species or occurrences that have been acquired in recent years, so that all important mineral specimens may now be considered to be on exhibition. In Hall 31 the series of lavas and volcanic products has been thoroughly rearranged in geographical groups and a number of specimens added. The additions include the series of specimens from the Japanese volcano of Sakurajima. The series of concretions, faults, and veins in this collection was also rearranged and some additions made. Some marcasite stalactites which had begun to

show signs of disintegration, were thoroughly treated with shellac and further decay checked. In connection with the rearrangement of the structural collections in this Hall, that of the study collection was carried on and considerable interchange of specimens made. About one-quarter of the entire exhibit, which occupies fifteen cases, was completely reinstalled in order to bring the series to a satisfactory condition. To the economic collections in Hall 34 a large number of specimens has been added and a considerable amount of reinstallation performed. In several of the cases the exhibits were entirely removed in order to allow painting of the interiors. These interiors are now all a uniform black. New series installed in this Hall include a number of rare earths; a series illustrating the manufacture of tungsten wire; a series of minerals resembling gold; several series illustrating the uses of cobalt, nickel, zinc, and tin; a number of additions to the building stone collection, including several marble slabs; and a model of a log washer for iron ores. The large specimens of ores in this Hall, which had hitherto rested directly on the floors of the cases and the finish of which they injured on account of their weight and jagged surfaces, have been provided with individual wooden supports placed so as not to be visible. Further injury to the cases has thus been averted. Additions to the collections illustrating the uses of cobalt, zinc, and nickel compounds have been prepared in the Museum work-rooms and placed on exhibition. These include the pigments which have these metals for base. They are shown as varnished coatings on blocks of wood four inches square. Beside each block is placed a tube of the pigment in oil partly emptied into a small watch glass, in order to show its color in quantity. Besides the zinc pigments there have been added to the collection illustrating uses of zinc, a dry cell with the zinc exposed to illustrate electrical uses of zinc; a zinc etching block and a print from it; a jar of zinc ointment, and powdered willemite used as a fluorescent screen in X-ray and radioactive work. A beginning has been made of a collection to illustrate uses of the rare earths and others of the less familiar elements. A Nernst lamp illustrates uses of zirconia, and a Welsbach mantle shows an important application of thoria and ceria that has made monazite valuable. A series of specimens shows all stages of the evolution of the filament of the tungsten electric light from the mineral scheelite to the wire ready to place in the lamp. One of the most interesting uses of titanium is shown in an example of the yellow enamel used by dentists. In order to obtain space for these additions, a collection of exhibited antimony ores was reduced. There has been added to the gold series a group of specimens illustrating the appearance of those minerals which are most frequently mistaken for gold. The series consists of two

specimens of gold in quartz and flake gold for comparative purposes and selected specimens of fool's gold or pyrite, copper pyrite, native copper in slate, and two specimens of mica, one of which is mixed with sand and one is pure. To the collection of building stones exhibited, 27 cubes and slabs have been added. A large specimen of fire clay from Missouri, received in 1912, has been installed in a case in this Hall, space being obtained by moving some less important specimens. Some of the less important pigments have been removed from their place of exhibit in Hall 33 and in their place has been installed the collection of coal tar products presented by the Barrett Manufacturing Company. The production of dyes, etc., from these substances make them of especial interest at the present time. Some additions have been made to the coal mine model in order to make some of its features more readily appreciable. Some of the underground portion has been cut away in order to show the position of the ventilating shaft and its connection with the hoisting shaft. This makes more evident the course of the ventilating system. In order to make the exhibit of washed iron ores, more instructive a small model of a log washer was constructed by the Assistant Curator and installed in connection with that exhibit. The model shows a trough containing a log bearing a series of fins arranged in a screw-like manner; a hopper and track on which the unwashed ores are brought to the washer; an engine house containing the engine for providing power for operating the washer; and a car for removing the washed ore. A scale of one-third of an inch to the foot was carefully adhered to in constructing the model, such a size having been adopted in order that the model might not overbalance the collection. The model is chiefly intended to assist the label in making the collection more instructive. The usefulness of such models has been very favorably commented on by visitors, on account of the ease with which the details of the models can be studied as compared with the noise, confusion, and complexity encountered in visits to large working plants. Some improvements have been made in the installation of the collection of petroleums shown in Alcove 107, chief among them being replacement of the large two-gallon bottles of petroleum products by smaller bottles, which are uniform in pattern with those in which the crude petroleums are installed. The appearance of the collection has thus been much improved. The installation of the other petroleum products has likewise been somewhat revised and improved. The series showing asphalts and their uses received from the Barber Asphalt Company, with two large photographs of Trinidad Lake, has been installed in Hall 35. Several new specimens of graphite have also been added to the graphite collection in this Hall. The specimens illustrating lithology and



EMBROIDERED SATIN PANELS, CHINA, EIGHTEENTH CENTURY.

Gift of Dr. Gunsaulus.

structural and dynamical geology, which occupy the drawers under the lithological exhibits, have been completely reinstalled; all specimens have been placed in trays in a logical order and labeled, the drawers have been numbered, and indexes have been prepared so that any specimen wanted can be found at once and can be shown to anyone desiring to study it. Material was prepared for several new cases for the work of the Harris Fund, in addition to a number of duplicates of those previously prepared. The new subjects illustrated include semiprecious stones, varieties of common rock, volcanic products, and coal-tar products. In the laboratory of vertebrate paleontology the preparation of vertebrate fossils has been actively continued and a considerable amount of material has been prepared. A skeleton of the sabre-tooth tiger was prepared for mounting; completion of the preparation and mounting of the slab containing 25 skeletons of the Water Deer, *Leptomeryx*, described in last year's report, was accomplished; the large slab of *Uintacrinus* was taken apart and entirely remounted; a skeleton of the Cave Bear was repaired and remounted; a nearly complete skeleton of the fossil camel *Oxydactylus* and a skull of *Elothierium* were prepared for exchange; a partial skeleton of *Oxydactylus* and skulls of *Aceratherium* and *Ancodon* were prepared for exhibition; a large specimen of *Orthoceras* was cleaned of plaster and a durable mount provided; the skeleton of the Washington mammoth presented by Mr. George Manierre was disarticulated and carefully packed in boxes so as to provide safety in storage; a set of jaws of the large shark *Charachodon* was cast in plaster and mounted for the purpose of replacing the former exhibit of this kind which was somewhat defective as to detail; some progress was made in mounting a skeleton of *Canis diurus*, and the entire collection of teeth of mammoths and mastodons, some of which were undergoing disintegration, was carefully treated in such a manner as to insure its preservation.

In the Department of Zoölogy a large habitat group of American Bison or Buffalo, consisting of five animals, a large old bull, a young bull, two females, and a calf, has been added to the exhibition collection. The scene is laid in Nebraska. Burrowing Owls, Prairie Dogs, and Rattlesnakes, which are common in that prairie country, are included in the group. The following single mammals have been installed and placed on exhibition in the serial collection: Chinese Takin (*Budorcas bedfordi*), a rare large mammal; Kansu Deer (*Cervus kansuensis*); Spectacled Bear (*Tremarctos ornatus*), a rare species from the Andes of Peru secured by Museum expedition, as was also the White-lipped Peccary (*Tayassu pecari*); Drill (*Papio leucocephalus*); White-tailed Mongoose (*Ichneumia albicauda*), and Porcupine (*Erethizon dorsatum*).

Painted backgrounds for a large group of Moose and a group of South American Capybara, including a Jaguar, have been prepared, and considerable work on the accessories for both these groups has already been done. The mounting of the specimens for the Moose group, very fine specimens secured by a Museum expedition last fall, is progressing in a satisfactory manner. A new method for making artificial bodies (manikins) for small mammals was introduced by Taxidermist Pray, which seems a decided improvement over the old way. A striking group of East African Buffalo, created by Carl E. Akeley, was installed in the South Court late in the year. This group, which includes two old bulls, one young bull, a cow, and a calf, is an impressive example of the possibilities of modern taxidermy. The five bulky animals are so skilfully and naturally grouped that the effect of space and power is not lost even in the confinement of a case of moderate size. In addition to simplicity and fidelity to nature both in grouping and in modeling, the individual animals of this group have an unusual quality produced by a new and superior technique in the treatment of the skin. The principal feature of this method consists in applying the tanned skin to the model in a dry instead of moistened condition. The result in the finished specimen, especially in the case of thinly haired animals, is much more lifelike than that of other methods, the skin appearing soft and natural instead of hard and unyielding. In the exhibition of comparative osteology 445 skulls were cleaned, and the following skeletons mounted and installed: Gila Monster (*Heloderma horridum*); Box Turtle (*Cistudo carolina*); Jacana (*Jacana spinosa*); Pigeon (*Columba livia*), and Cave Bat (*Eonycteris spelæa*). A large habitat group of birds representing bird life in the far north on Walrus Island, Alaska, has been completed and placed on exhibition. This group includes 51 birds with nests, eggs, and several nestlings; some of them, notably the Red-faced Cormorant, are rare and are becoming more so each year. Among the most interesting birds in this group may be mentioned, in addition to the Red-faced Cormorants, the Tufted Puffins, Horned Puffins, Paroquet Auklets, and various species of Gulls (among them the Red-legged Kittiwake Gull), Murres, etc. An instructive feature of the group is in showing the Glaucous and Glaucous-winged Gulls stealing and eating the eggs of the Pallas Murres, which breed in great numbers on this barren, isolated island. For the serial collection there were mounted: 1 Coot (*Fulica americana*); 1 Red-shouldered Hawk (*Buteo lineatus*); 2 Kittlitz Murrelets (*Brachyramphus brevirostris*), and 1 Harlequin Duck (*Histrionicus histrionicus*). A number of bird skins from fresh specimens sent in for the study collection, including the Snowy Owl, were prepared. A number of fishes and

crustaceans have been painted for the exhibition collection. One exhibition case of mounted fishes from California was installed, and 88 fishes, 79 from Florida and California and 9 from Alaska, have been mounted and painted. Included are many handsome species, among them being a number of Salmon and Trout from California. A considerable number of specimens of various insects, moths, butterflies, beetles, etc., have been pinned and prepared. Early in the year 16 A-shaped cases were delivered for installing the exhibition collection of shells and insects to replace the flat cases at present in use. The Assistant Curator of Entomology devoted considerable time to rearranging shells for the new method of installation. Upon the return of Collector Becker from South America he was added to the staff of assistants in this Department and devoted his time to this work.

THE N. W. HARRIS PUBLIC SCHOOL EXTENSION OF FIELD MUSEUM OF NATURAL HISTORY.

—The Curator reports that the practical inauguration of Mr. Harris' benefaction has been attended with success. The cases prepared during the year number 207, making, with the cases previously installed, a grand total of 286. The pupils in the public schools examining these collections during the year numbered 368,044. The schools provided with cases were 326, divided as follows: Main Schools 266, Branch Schools 39 and Vacation Schools 21. Each Main School was provided with not less than 6, each Branch School with not less than 3, and each Vacation School with not less than 12 cases at a time. The automobile delivery car designed for the distribution of the circulating collections was delivered during the year and has proved satisfactory. It has a capacity of 45 cases and travels each day of the school week approximately 80 to 100 miles. Thirty-four of the cases will be exhibited at the Panama Pacific International Exposition, San Francisco, during the coming year.

PHOTOGRAPHY AND ILLUSTRATION.—The reduction in the force of this section naturally affected the output for the year. Still the showing made is satisfactory. The following is a statement of the work performed:

	Number of Negatives made	Number of Prints made	Number of Lantern Slides made	Number of Enlargements made	Number of Negatives developed for Expeditions	Number of 6½x8½ Posi- tives made, Used in mak- ing large Negatives
Director's Office	89	131	..	..	..	..
Anthropology	204	1,049	28	..	..	..
Botany	35	160	35	20	..	20
Geology	27	30	..	..	..	..
Zoölogy	23	297	..	..	..	..
Harris Extension	45	213	..	..	33	..
Distribution . . . . .	..	86	..	..	..	..
Gift . . . . .	..	190	..	..	..	..
Sale . . . . .	..	884	..	..	..	..
Totals	423	3,040	63	20	33	20
Total number of Catalogue entries during year 1914						3,599
Total number of Catalogue entries to December 31, 1914						110,827
Total number of Record Books						15

PRINTING.—The force in this Section was also reduced, but the printers were able to keep pace with the copy submitted for labels. The work performed is tabulated below:

	Exhibition Labels	Other Impressions
Anthropology	2,660	550
Botany	2,417	25,200
Geology	1,588	1,000
Zoölogy	88	.....
Library . . . . .	.....	5,000
General . . . . .	.....	30,831
N. W. Harris Public School Extension	7,803	2,120

ATTENDANCE.—The total attendance record for the year is 208,769. Appended is a list of the classes, thirty or more, that visited the Museum during the term under review.

LIST OF CLASSES

Schools and Locations	Teachers	Pupils
University of Chicago — Chicago, Illinois		23
University of Chicago — Chicago, Illinois	2	28
Northwestern Military Academy — Evanston, Illinois	4	92
University Elementary — Fifty-ninth and Kenwood Avenue		22
John Marshall High — Adams Street between Spaulding and Kedzie Avenue	1	34
Lake Forest — Lake Forest, Illinois	4	79
St. Ignatius — 1076 West Twelfth Street	1	50
University High — Fifty-ninth and Kenwood Avenue	1	34



CHINESE TAKIN (*Budorcas bedfordi*).
Julius Friesser, Taxidermist.

Schools and Locations		Teachers	Pupils
Francis W. Parker — 330 Webster Avenue		4	24
University of Chicago — Chicago, Illinois		1	20
Evanston — Evanston, Illinois		2	22
John Marshall High — Adams Street between Spaulding and Kedzie Avenue		1	28
Hyde Park High — Sixty-second and Stony Island Avenue . . .		1	25
Broad View Seminary — La Grange, Illinois		2	35
University of Chicago — Chicago, Illinois		1	25
University of Chicago — Chicago, Illinois		1	21
Winnetka — Winnetka, Illinois		3	30
Francis W. Parker — 330 Webster Avenue		1	20
John Marshall High — Adams Street between Spaulding and Kedzie Avenue		1	41
Froebel — West Twenty-first and Robey Street		2	28
University of Chicago — Chicago, Illinois			21
Willard — Forty-ninth and St. Lawrence Avenue		1	46
Chicago Academy of Fine Arts — 6 East Madison Street . . .		1	45
Hyde Park High — Sixty-second and Stony Island Avenue . . .		1	160
Washington — Morgan and Grand Avenue		2	40
Madison — Seventy-fifth and Dorchester Avenue		2	84
Willard — Forty-ninth and St. Lawrence Avenue		1	27
St. Patricks — 2303 Park Avenue		2	44
St. Elizabeths High — 13 East Forty-first Street		2	50
Hyde Park High — Sixty-second and Stony Island Avenue . . .		1	54
University of Chicago — Chicago, Illinois			25
Englewood High — Sixty-second and Stewart Avenue		1	90
Hyde Park High — Sixty-second and Stony Island Avenue . . .		2	50
Concordia Teachers College — River Forest, Illinois		1	45
East Chicago High — East Chicago, Illinois		3	34
Gallistel — One-hundred and Fourth and Ewing Avenue . . .		1	50
Hyde Park High — Sixty-second and Stony Island Avenue . . .		1	23
Englewood High — Sixty-second and Stewart Avenue		1	20
St. Benedicts Rectory — 294 York Street, Blue Island, Illinois .		5	60
MacGregor — Whiting, Indiana		3	73
Hyde Park High — Sixty-second and Stony Island Avenue . . .		1	32
Sherlock — Cicero, Illinois		1	52
Greek American — Sixty-first and Michigan Avenue		4	40
Blue Island — Blue Island, Illinois		7	33
River Forest — River Forest, Illinois		1	21
Beale — Sixty-first and Sangamon Street		1	23
Bethany Bible Institute — 3435 West Van Buren Street			24
Warren — Ninety-second and Chappel Avenue		1	38
Notre Dame University — South Bend, Indiana		1	25
Walsh — Twentieth and South Peoria Street		4	40
Wells — North Ashland near Augusta Street		2	38
Pullman — One hundred and Thirteenth and Forestville Avenue .		1	38
Willard — Forty-ninth and St. Lawrence Avenue		2	34
Thorp — Eighty-ninth and Superior Avenue		1	35
Raymond — Thirty-sixth Place and Wabash Avenue		1	30
Darwin — Edgewood Avenue and Catalpa Court		1	25

Schools and Locations	Teachers	Pupils
Willard — Forty-ninth and St. Lawrence Avenue	1	35
University of Chicago — Chicago, Illinois	1	60
Parkside — Seventieth and East End Avenue	1	32
Thorp — Eighty-ninth and Superior Avenue	1	40
Komensky — Twentieth and Throop Street	1	29
Harper — Sixty-fifth and South Wood Street	1	34
Blaine — Janssen Avenue and Grace Street	1	22
Grant — Wilcox Street and Western Avenue	1	32
Blaine — Janssen Avenue and Grace Street		20
Normal — Sixty-eighth and Stewart Avenue	50	
Chicago Hebrew Institute — West Taylor, corner of Lytle	2	32
Longfellow Vacation — Thirty-fifth and South Pulaski Avenue .	13	241
Gladstone Vacation — Robey Street and Washburne Avenue . .	24	603
Olivet Institute — 709 Vedder Street	10	224
Jewish Training — 199 West Twelfth Street	9	90
Agassiz — Diversey Boulevard and Seminary Avenue	17	280
De Paul University — 1010 Webster Avenue	1	30
Summit — Summit, Illinois	1	30
Evangelic Lutheran Concordia — Sheffield, corner of Waveland Avenue	1	44
Wendell Phillips High — Thirty-ninth and Prairie Avenue		33
Convent of the Holy Child — 6585 Sheridan Road	1	28
Washington — Morgan and Grand Avenue	1	58
Carter Practice — Sixty-first and Wabash Avenue	2	51
Francis W. Parker — 330 Webster Avenue	1	32
Goodrich — Sangamon and Taylor Street		21
Chicago Latin — 20 East Division Street	1	21
University High — Fifty-ninth and Kenwood Avenue	1	21
McCosh — Sixty-fifth and Champlain Avenue		43
J. Sterling Morton High — Sterling, Illinois	1	30
Ray — Fifty-seventh and Kenwood Avenue	2	48

Herewith are also submitted financial statements, list of accessions, names of members, etc., etc.

FREDERICK J. V. SKIFF, Director.

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS



BUILT-IN HOLLOW MANIKIN METHOD FOR MOUNTING SMALL MAMMALS.

The initial step is to wire the specimen as though the ordinary method of mounting were to be followed. The inside of the skin is then given a coating of poison paste and immediately afterwards the composition is put in and modelled. The most satisfactory composition used so far is one made of library paste, water, and a pinch of arsenic, to which is added whiting and sufficient chopped tow to make the mixture of the proper consistency for modelling but nevertheless sticky. The cavity in the manikin is then lined with cloth and filled with sawdust, which, when the specimen is dry, is removed by means of the plug (p) inserted in the end of the body, or in the side, if the animal is to be in a recumbent position. Depressions in the anatomy are maintained by the use of insect pins, which are cut off flush when the skin has adhered properly to the manikin. The legs of very small mammals may be filled wholly with composition, as is shown in the figure (c), but the legs of larger mammals should have a wrapped core. The tail wire (t) is merely wrapped with cotton to secure the required thickness. The advantage of this hollow manikin method is that the mounted specimen is light, very durable and almost indestructible. (Originated and used by Leon L. Pray.)

FINANCIAL STATEMENT

RECEIPTS AND DISBURSEMENTS

January 1, 1914, to December 31, 1914

RECEIPTS

Cash in Treasurer's hands, General Fund, December 31, 1913 . . .	\$11,690.37
Cash in Treasurer's hands, Endowment Sinking Fund, December 31, 1913	180.00
Cash in Treasurer's hands, New Exhibition Cases Fund, December 31, 1913	930.75
Petty Cash on hand, December 31, 1913	739.95
Dues of Life Members	500.00
Dues of Annual Members	1,090.00
Admissions and Check Rooms	5,526.50
Sales of Guides	158.75
South Park Commissioners	15,000.00
Interest on Investments and Bank Balances	9,609.62
Field Endowment Income	136,500.00
Field Endowment Sinking Fund	500.00
Field Endowment Sinking Fund Income	160.00
New Exhibition Cases Fund	3,500.00
New Exhibition Cases Fund Investments retired	53,713.67
New Exhibition Cases Fund Income	1,913.09
Stanley Field Ornithology Fund	1,200.00
Mrs. T. B. Blackstone Fund	900.00
Huntington W. Jackson Library Fund	40.00
Donations — George Manierre	500.00
Life Memberships Fund Income	292.45
Life Memberships Fund Investments retired	4,500.00
Sales of Picture Postal Cards	433.34
Sundry Receipts	72.02
	<u>\$249,650.51</u>

DISBURSEMENTS

Salaries	\$73,489.35
Guard Service	12,208.03
Janitor Service	7,121.35
Fire Protection	6,124.50
Heat and Light:	
Wages	\$4,102.00
Fuel	6,967.78
Gas	459.04
Renewals, supplies, and sundries	906.71
	<u>12,435.53</u>

Repairs and Alterations —

Wages — Carpenters, Painters, Roofers, etc.	\$8,717.49	
Materials used — lumber, paints, oils, glass, etc.	1,705.53	10,423.02

Furniture and Fixtures — Cases		29,067.24
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The Library —

Books and Periodicals	\$1,472.73	
Binding	532.48	
Sundries	29.53	2,034.74

Sections of Printing and Photography		4,283.15
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Collections, etc., purchased		27,287.44
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Departmental Expenses		2,940.91
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Expeditions		584.19
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Publications		2,815.99
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General Expense Account —

Freight, Expressage, and Teaming	\$1,925.73	
Stationery, Postage, Telephone, etc.	836.73	
Picture Postal Cards	518.00	
Liability Insurance Premium	697.56	
Sundries	1,408.81	5,386.83

Stanley Field Ornithology Fund		1,457.25
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Mrs. T. B. Blackstone Fund		936.00
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In Treasurer's hands, December 31, 1914 —

General Fund	\$10,828.95	
New Exhibition Cases Fund	3,490.27	
Endowment Sinking Fund	525.00	
Picture Postal Card Account	433.34	15,277.56

Petty Cash on hand, December 31, 1914		739.95
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Life Memberships Fund Investments		6,746.69
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Huntington W. Jackson Library Fund Investments		475.79
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Endowment Sinking Fund Investments		315.00
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New Exhibition Cases Fund Investments		27,500.00
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\$249,650.51

ATTENDANCE AND RECEIPTS FROM JANUARY 1 TO DECEMBER 31, 1914

ATTENDANCE.

Paid Attendance —

Adults	19,101	
Children	2,098	21,199

Free Admission on Pay Days —

School Children	4,653	
Students	3,398	
Teachers	516	
Members: Corporate	43	
Annual	19	
Life	6	
Officers' Families	76	
Special	268	
Press	23	9,002

Admissions on Free Days —

Saturdays	50,816	
Sundays	127,752	178,568

Total Attendance	208,769	
Highest Attendance on any one day (July 5, 1914) . . .	6,738	
Highest Paid Attendance on any one day (September 7, 1914)	569	
Average Daily Admissions (363 days)	575	
Average paid Attendance (261 days)	81	

RECEIPTS.

Guides Sold — 635 at 25 cents each	\$ 158.75
Articles Checked — 10,829 at 5 cents each	541.45
Admissions	4,985.05
	<hr/>
	\$5,685.25

ACCESSIONS

DEPARTMENT OF ANTHROPOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AYER, E. E., Chicago, Illinois.

Large bronze Etruscan vessel.

Small variegated glass bottle, neck and shoulders being restored in plaster—Egypt.

Beautiful statuette, female, of diorite (exchange).

BARKER, MRS. FRANK W., Chicago, Illinois.

1 fragmentary Roman tile.

7 Asiatic stone weights.

2 Greek vases (an original and a copy).

1 Egyptian Ushabti figure.

1 Fan—India.

1 Fancy Fan.

1 N. W. Coast horn spoon.

6 N. W. Coast gambling sticks.

8 specimens Hawaiian ethnology.

BLACKSTONE, MRS. T. B., Chicago, Illinois.

1 Japanese gold coin.

1 Japanese silver coin.

690 Chinese coins—Wei-hien, Shantung, China.

DEVLIN, MRS. FRANK A., Chicago, Illinois.

3 carved cups, made from a pod—Costa Rica.

2 small clay vessels, prehistoric—Costa Rica.

DORSEY, GEO. A., Chicago, Illinois.

3 Chinese printing-blocks from Examination Hall at Nanking, Nanking, China.

ELLIS, RICHARD GORDON, Chicago, Illinois.

Rawhide lariat.

Wooden bow with skin case.

Stone celt.

Stone disc.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by Chas. L. Owen:

3 two-faced Navajo blankets.

1 two-faced Navajo blanket, in the weaving.

1 ball coarse white yarn.

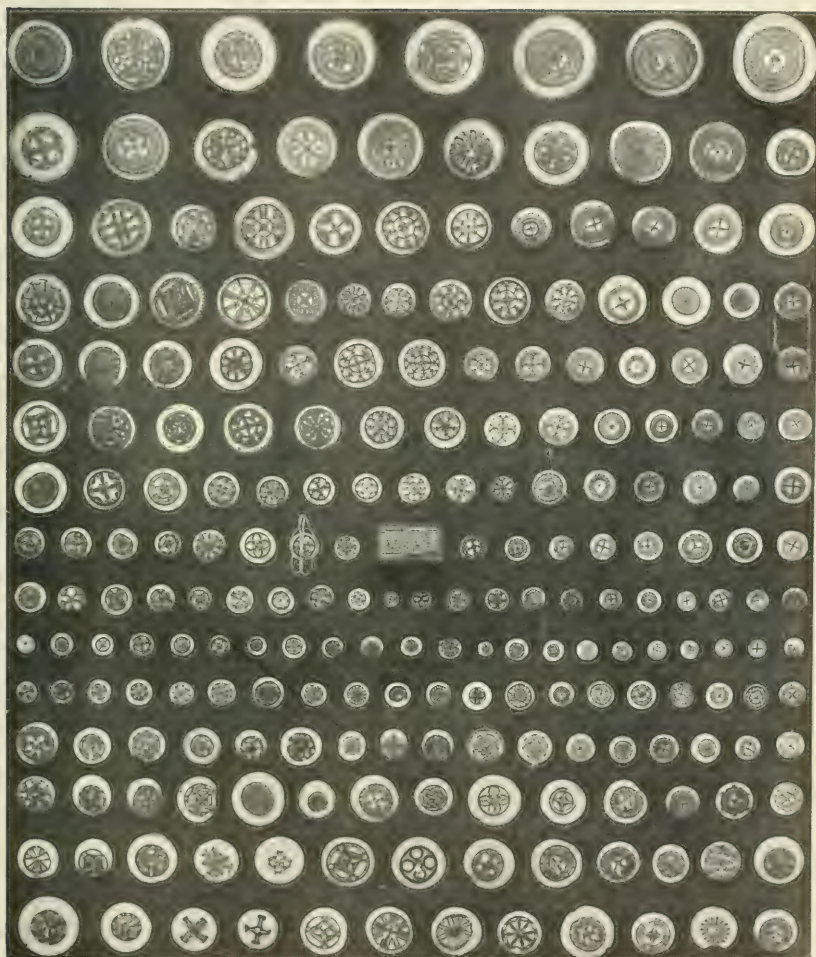
1 ball coarse black yarn.

1 plaited wool rope.

1 batten.

1 reed fork.

1 shuttle—N. E. Arizona.



BREAST ORNAMENTS OF SHELL AND TORTOISE SHELL, ADMIRALTY ISLANDS.

The Joseph N. Field Expedition.

Purchases:

- 2 nephrite tablets from imperial jade book inscribed in Manchu, China.
 - 1 wood-carved seal.
 - 1 grant written on yellow satin and bestowed by Emperor K'ang-hi on
Lama Temple near Taochow, Taochow, Kansu Prov., China.
 - 20 tear bottles from Egypt.
 - 2 Italian bronze vessels of Greek style, Rome.
- FOWLER, E. H., Chicago, Illinois.
Large flaked implement, shells, fragments of pottery, rejects from cave,
and five stone objects—Pinal Co., Arizona.
- FRIESSER, J., Chicago, Illinois.
1 Buffalo skull—Fort Pierre, South Dakota.
- GUNSAULUS, DR. F. W., Chicago, Illinois.
2 silk embroidered hangings from Imperial Palace of Peking, Peking.
2 Japanese water colors framed under glass—Japan.
- KALDENBERG, F. W., New York City.
1 Rhinoceros horn.
- LOWE, DR. W. S., Phoenix, Arizona.
6 sections of ceremonial cane stem.
3 same as preceding, with the addition of a small rectangular cotton fabric
tied around the joint—Camelback Mts., Arizona.
- MASON, THOMAS, Chicago, Illinois.
1 Chinese mariner's compass, in case of polished copper—Hankow, China.
- MOORE, C. B., Philadelphia, Pennsylvania.
Archeological specimens.
- ROBERTS, GEORGE C., Sharon Hill, Pennsylvania.
50 arrow-heads.
2 stone axes.
- SARGENT, HOMER E., Chicago, Illinois.
Mexican gold ring—Mexico.
- SCHROTT, FRED, Salt Lake City, Utah.
Flaked knife blade of chert—Caliente, Nevada.
- TAYLOR, DR. JOHN R., Madison, Wisconsin.
3 Chinese paintings representing a match of polo—China.
2 painted albums—Peking, China.
- WARDEN, CLEAVER, Carlton, Oklahoma.
Peyote Outfit—Oklahoma.

DEPARTMENT OF BOTANY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

- ARTHUR, PROF. J. C., Lafayette, Indiana.
Herbarium specimens.
- BAMBER, C. A., St. Cloud, Florida.
1 bundle Palmetto sheaths—St. Cloud, Florida.
- BUREAU OF PLANT INDUSTRY, Washington, D. C.
Herbarium material, 200 Grasses (exchange).
Specimens of Crude Drugs (exchange).
- CARSON, DR. H. R., Phoenix, Arizona.
Herbarium specimen—Arizona.

COKER, W. C., Chapel Hill, North Carolina.

Herbarium specimen—South Carolina.

COOS BAY PULP & PAPER COMPANY, Marshfield, Oregon.

Compound Pulp for paper manufacture—Marshfield, Oregon.

COVILLE, DR. FREDERICK V., Washington, D. C.

Photograph of the original description of *Euphorbia adenoptera*.

COWLES, PROF. H. C., Chicago, Illinois.

1241 herbarium specimens.

Herbarium specimens—Indiana and Greenhouse.

CURTISS, MISS E., Chicago, Illinois.

Private herbarium of George F. Curtiss.

DAHLGREN, DR. B. E., Chicago, Illinois.

Herbarium specimens—Colorado.

DAY, MISS MARY F., Cambridge, Massachusetts.

Generic descriptions—Cambridge, Massachusetts.

DEUSNER, C. W., Chicago, Illinois.

His herbarium—Illinois and Indiana.

FIELD MUSEUM OF NATURAL HISTORY.

Collated by O. E. Lansing, Jr.:

1 plant description.

Collated by C. F. Millsbaugh:

337 herbarium specimens.

31 illustrations of species.

Wood of Oregon Maple.

Wood plates Sugar Maple.

1 specimen fruit.

1 specimen wood.

3 parts herbarium specimens—New Mexico.

Collated by H. H. Smith:

3 board specimens—Philippines.

Collected by B. E. Dahlgren:

Dry fruit *Pandanus*—Jamaica.

Collected by O. E. Lansing, Jr.:

229 herbarium specimens—Starved Rock State Park, Illinois and Indiana.

Collected by H. H. Smith:

14 herbarium specimens—Indiana.

147 economic specimens—Indiana.

Purchases:

424 herbarium specimens—Nevada and California, Texas and New Mexico

Various fibers and their utilizations—Philippine Islands.

200 herbarium specimens.

Herbarium specimens.

863 herbarium specimens.

1414 herbarium specimens — Mexico.

2 herbarium specimens — Bolivia.

56 herbarium specimens — Tobago.

Cocaine.

Rose petal rosary and components — California.

Section of Modeling:

7 glass reproductions of *Desmidae*.

- Green Algae and Desmids.
- Branch of Horsechestnut.
- Flowers of Horsechestnut.
- Fruits of Horsechestnut.
- Chocolate pod.
- Chocolate cake.
- Reproduction of fruit of *Pandanus utilisissimus*.
- Sectional fruits of *Connarus* — Java.
- FOREST ECONOMIST, Dahra Dun, India.
 - 9 economic forest products — India.
 - 19 vegetable products — India.
- FORBES, F. F., Brookline, Massachusetts.
 - 23 herbarium specimens.
- GARCIA, DR. CRESCENCIO, Tigulpan, Mexico.
 - Coca leaves — Mexico.
- GAULT, BENJ. T., Glen Ellyn, Illinois.
 - Trunk section.
 - Board specimen.
 - Photographic prints all of *Crataegus Gaultii* Sarg. — Illinois.
- GRAY HERBARIUM, Cambridge, Massachusetts.
 - Description of *Euphorbia adenoptera*.
- GREENE, PROF. E. L., Washington, D. C.
 - 2 herbarium specimens.
- HAMILTON MANUFACTURING COMPANY, Two Rivers, Wisconsin.
 - Maple wood type — Wisconsin.
- HELLER, A. A., Chicago, Illinois.
 - 5 herbarium specimens.
- HOLZINGER, JOHN M., Winona, Minnesota.
 - 1 herbarium specimen — Coronation Island, Alaska.
- KROUT, DR. A. F., Glenolden, Pennsylvania.
 - 4 herbarium specimens — Pennsylvania.
- LAUFER BERTHOLD, Chicago, Illinois.
 - Derge paper-root and paper. Tibetan Tea.
 - Tibetan medicines — Tibet.
 - Tibetan Brick Tea — Tibet.
- MILLSPAUGH, MRS. CLARA MITCHELL, Chicago, Illinois.
 - Cherry tree gum — Lake Side, Michigan.
- MILLSPAUGH, C. F., Chicago, Illinois.
 - Fruits of *Asclepias syriaca*.
 - Fruits of *Calotropis gigantea* — Jamaica and Illinois.
 - 192 colored illustrations of Mushrooms — Austria.
 - Bundle Scouring rushes — Lake Side, Michigan.
 - 65 herbarium specimens — Michigan.
 - 3 herbarium specimens — District Columbia.
- MISSOURI BOTANICAL GARDEN, St. Louis, Missouri.
 - 316 herbarium specimens — Austro-Hungary.
 - 2 photographs of a type (exchange).
- NATAL HERBARIUM, Berea, Durban, Union of South Africa.
 - 101 herbarium specimens — South Africa.

NEW YORK BOTANICAL GARDEN, New York City.

2 herbarium specimens — Jamaica (exchange).

649 herbarium specimens (exchange).

Specimen of *Pedilanthus Smallii* Millsp. (exchange).

10 herbarium specimens (exchange).

220 herbarium specimens — West Indies (exchange).

2 herbarium specimens — Big Pine Key, Florida (exchange).

1 herbarium specimen — Mexico (exchange).

PADILLA, DR. SISTO ALBERTO, Salvador.

1 herbarium specimen — Salvador.

PARISH, S. B., San Bernardino, California.

6 herbarium specimens — California.

REECHER, S. E., Chester, Illinois.

8 herbarium specimens — Illinois.

REYNOLDS, MISS CARRIE A., Chicago, Illinois.

Herbarium specimens — Illinois, Yellowstone, San Juan Island.

SAFFORD, LIEUT. W. E., Washington, D. C.

Dried petals of *Cymbopetalum penduliflorum* — Guatemala.

SHERFF, EARL E., Chicago, Illinois.

1 herbarium specimen — France.

SMITH, HURON H., Chicago, Illinois.

160 herbarium specimens — Illinois and Wisconsin.

UNITED STATES FOREST PRODUCTS LABORATORY, Madison, Wisconsin.

44 specimens of Wood Pulp for paper making (exchange).

UNITED STATES NATIONAL MUSEUM, Washington, D. C.

6 photographs of types (exchange).

UNIVERSITY OF PENNSYLVANIA, Herbarium, Philadelphia, Pennsylvania.

56 herbarium specimens (exchange).

URBAN, PROF. DR. IGNATZ, Daglem-Steglitz.

Part of type herbarium specimen — Cuba.

WAITE GRASS CARPET COMPANY, Oshkosh, Wisconsin.

5 specimens illustrating the manufacture of grass carpet — Wisconsin.

WILLEY, C. L. COMPANY, Chicago, Illinois.

Board and veneer of Gaboon Mahogany — Gaboon, Africa.

WOLCOTT, A. B., Chicago, Illinois.

1 herbarium specimen — Illinois.

DEPARTMENT OF GEOLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

AMERICAN VANADIUM COMPANY, Pittsburgh, Pennsylvania.

3 specimens vanadium ores — Minasrarga, Peru.

BARBER ASPHALT PAVING COMPANY, Philadelphia, Pennsylvania.

46 specimens asphalt and asphalt products.

2 large photographs of Trinidad Pitch Lake — Trinidad and Venezuela.

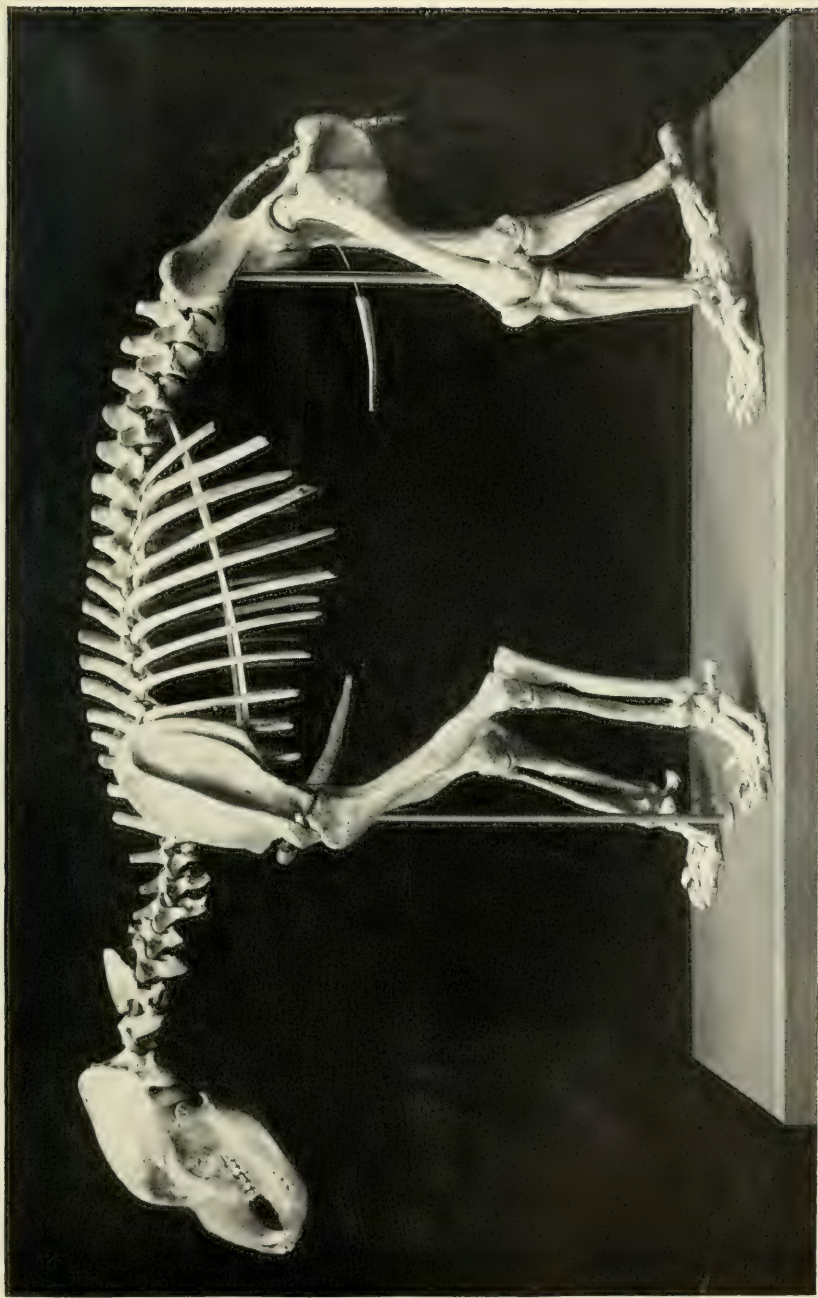
BARKER, MRS. F. W., Chicago, Illinois.

1 specimen travertine.

1 specimen tourmaline.

BARRETT MANUFACTURING COMPANY, Chicago, Illinois.

11 specimens coal tar and products.



FOSSIL SKELETON OF CAVE BEAR (*Ursus spelaeus*) FROM TRIEST, AUSTRIA.

BURNHAM, AUSTIN A., Cleveland, Ohio.

- 1 specimen fossil fish (*Palaeoniscus brainerdi*) in matrix — Chagrin Falls, Ohio.

BLACKWELL, JOHN T., Chicago, Illinois.

- 12 specimens agate, jasper, opal, etc., — Trinity County, California.

BOSS GOLD MINING COMPANY, Goodsprings, Nevada.

- 2 specimens platinum and gold ore — Goodsprings, Nevada.

BOYDEN, DWIGHT B., Chicago, Illinois.

- 20 specimens bonanza silver ores.

- 1 specimen native copper — Mexico and Arizona.

BROCKWAY, WM., Tlatlaya, Est. de Mexico, Mexico.

- 16 specimens gold ores and associated minerals — Tlatlaya, Mexico.

CHICAGO VARNISH COMPANY, Chicago, Illinois.

- Block varnished with elaterite varnish.

CLEVELAND STONE COMPANY, Cleveland, Ohio.

- 1 dressed specimen of Gray Canyon sandstone — Cleveland, Ohio.

MICHAEL COHEN & COMPANY, New York City.

- 1 four-inch cube of Caen stone — France.

COLORADO-YULE MARBLE COMPANY, Chicago, Illinois.

- 1 four-inch cube white Colorado-Yule marble — Yule Canyon, Colorado.

CURTISS, MISS E., Chicago, Illinois.

- 289 specimens minerals and fossils.

DETROIT GRAPHITE COMPANY, Chicago, Illinois.

- 1 specimen graphite — Baraga County, Michigan.

JOSEPH DIXON CRUCIBLE COMPANY, Jersey City, New Jersey.

- 5 specimens crude and refined graphite.

DJORUP, FRANTZ, Chicago, Illinois.

- 4 specimens magnesium oxy-chloride cement flooring.

DOLESE & SHEPARD COMPANY, Chicago, Illinois.

- Orthoceras in matrix — Gary, Illinois.

- 1 specimen fossil orthoceras — Gary, Illinois.

DUMONT, DR. T. A., and ADAMS, H. C., Dumont, Iowa.

- 5 specimens silver ores.

- 1 specimen gold ore — San Bernardino County, California.

FARLEY, THOS., and O'TOOLE, MICHAEL, Chicago, Illinois.

- Skull of *Bison Americanus* — Chicago.

FIELD, JOSEPH N., EXPEDITION.

- 6 specimens volcanic tuff — Ambrym, New Hebrides.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by O. C. Farrington:

- 1 crystal of orthoclase — Stoneham, Maine.

Collected by H. W. Nichols:

- 1 specimen vegetable mold — Antioch, Illinois.

Purchases:

Bishop Canyon Meteorite.

Scott City meteorite.

- 1 specimen orthoceras.

Set of nine models of diamonds cut from the Cullinan diamond.

Collection of volcanic products from the January, 1912, eruption of Sakurajima.

- Pictures of same.
- 1 etched slice Mt. Edith meteorite.
- Collection illustrating varieties of amber — Prussia.
- Teeth of fossil shark — South Carolina.
- Jaw of modern shark.
- Teeth and tusks of young mastodon — Chesterton, Indiana.
- EDISON LAMP WORKS OF THE GENERAL ELECTRIC COMPANY, Chicago, Illinois.
- 10 specimens illustrating all stages of the manufacture of the tungsten lamp filament.
- GOODALL, MRS. ELLEN F., Chicago, Illinois.
- 1 fossil fish — Wyoming.
- GREBEL, WENDLER & COMPANY, Geneva, Switzerland.
- 21 specimens minerals (exchange).
- GUILD, H. G., Vale, Oregon.
- 137 specimens fossil shells, moss agate, etc. — Eastern Oregon.
- HARDIN, O. B., Chicago, Illinois.
- 1 specimen black sand — Woods County, Oklahoma.
- ILLINOIS STEEL COMPANY, Chicago, Illinois.
- 4 specimens coke oven by-products — Gary, Indiana.
- KENKEL, L. V., New Plymouth, Idaho.
- 26 specimens minerals and fossils — Eastern Oregon.
- KRANZ, DR. F., Bonn, Germany.
- 1 skull and lower jaw of Zeuglodon osiris — Fayum, Egypt (exchange).
- Mounted skeleton of cave bear (*Ursus spelaeus*) — Trieste, Austria (exchange).
- LAMB, N. F., Jonesboro, Arkansas.
- 2 elephant teeth — Bay, Arkansas.
- LEE MARBLE WORKS, Lee, Massachusetts.
- 1 polished slab of marble.
- 1 four-inch cube of marble — Lee, Massachusetts.
- MAINE AND NEW HAMPSHIRE GRANITE CORPORATION, Portland, Maine.
- 1 cube each of Redstone Pink, Redstone Green, and North Jay White granite — North Jay, Maine and Redstone, New Hampshire.
- MANIERRE, GEORGE, Chicago, Illinois.
- Skeleton of the Mammoth — Spokane County, Washington.
- MARSH, C. H., Marshfield, Oregon.
- 2 specimens natrolite — Douglas County, Oregon.
- MCDERMOTT STONE COMPANY, McDermott, Ohio.
- 2 specimens building stone — McDermott, Ohio.
- MEREDITH MINING AND MILLING COMPANY, Libertyville, Illinois.
- 1 specimen crushed feldspar sized for bird grit — Coatesville, Pennsylvania.
- THE MICA MILLING AND MANUFACTURING COMPANY, Crawford, Nebraska.
- 1 specimen mica.
- 1 specimen ground mica — Crawford, Nebraska.
- THE MT. WALDO GRANITE WORKS, Frankfort, Maine.
- 1 four-inch dressed cube of Mt. Waldo Granite — Mt. Waldo, Maine.

THE NERNST LAMP COMPANY, Pittsburgh, Pennsylvania.

1 Nernst lamp.

NEW YORK STATE MUSEUM, Albany, New York.

2 specimens fossil glass sponge (*Hydnoceras bathense* H. & C.) — Bath, New York.

NICHOLAS, DR. F. C., New York City.

62 specimens ores and lavas — Sonora, Mexico.

NORTH, PROF. H. B., New Brunswick, New Jersey.

6 specimens limonite after marcasite.

1 specimen hematite.

1 specimen iridescent pyrite — Wisconsin and New Jersey (exchange).

NORTH CAROLINA GRANITE CORPORATION, Mt. Airy, North Carolina.

1 dressed block Mt. Airy granite — Mt. Airy, North Carolina.

OHIO QUARRIES COMPANY, Cleveland, Ohio.

1 four-inch dressed cube of Buckeye gray sandstone — Cleveland, Ohio.

PATTEE, FRED, Chicago, Illinois.

1 specimen asbestos — Grand Canyon, Arizona.

PELTZER, ALBERT, Argo, Illinois.

1 specimen *Orthoceras* — Argo, Illinois.

PHENIX MARBLE COMPANY, Kansas City, Missouri.

2 specimens gray marble — Kansas City, Missouri.

PIERCE, HENRY B., Golconda, Illinois.

2 specimens fluorite (1st quality optical) — Golconda, Illinois.

POTTER, LOUIS C., Chicago, Illinois.

1 geode — Mississippi River near St. Louis, Missouri.

RENNE, D. S., Verona, Illinois.

2 septaria — Marseilles, Illinois.

ROCKPORT GRANITE COMPANY, Rockport, Massachusetts.

3 four-inch cubes of granite — Massachusetts and Maine.

ROMANO, JOSEPH, Chicago, Illinois.

1 specimen eroded limestone — Melrose Park, Illinois.

ROYAL ONTARIO MUSEUM OF MINERALOGY, Toronto, Canada.

3 polished specimens of silver ore — Cobalt, Ontario (exchange).

ST. JOHN, C. A., Wayland, New York.

1 marcasite concretion — Ogden, Iowa.

SALTO, DR. A. B., Copenhagen, Denmark.

1 specimen carnotite — Paradox Valley, Colorado.

SALISBURY, PROF. R. D., Chicago, Illinois.

2 fossil tree trunks — Patagonia.

SCOTT, GEO. S., New York City.

13 specimens minerals (exchange).

1 specimen amethyst — Cripple Creek, Colorado (exchange).

SHNABLE AND QUINN, Chicago, Illinois.

1 specimen *Orthoceras* — Calumet-Sag Canal.

SPANISH AMERICAN IRON COMPANY, New York City.

3 specimens iron ore — Cuba.

SOUTH DOVER MARBLE COMPANY, New York City.

1 four-inch cube of white marble, dressed.

1 polished slab of white marble — South Dover, New York.

STEARNS COAL AND LUMBER COMPANY, Stearns, Kentucky.

1 specimen carbonate iron ore — Stearns, Kentucky.

STRAWN, J. E., Silver Star, Montana.

47 specimens of minerals and ores — Tobacco Root Mts., Montana.

THURSTON, DR. FREDUS A., Chicago, Illinois.

Titanium oxide coloring artificial teeth.

UNIVERSAL PORTLAND CEMENT COMPANY, Chicago, Illinois.

5 specimens raw materials and finished Portland cement.

UNIVERSITY OF CALIFORNIA, Berkeley, California.

Skeleton of saber-tooth tiger (*Smilodon neogens*) — Los Angeles, Cal.
(exchange).

WEBB GRANITE AND CONSTRUCTION COMPANY, Worcester,
Massachusetts.

3 dressed cubes of granite — Massachusetts and New Hampshire.

WEGG, HAROLD, Chicago, Illinois.

48 specimens minerals, ores and fossils.

WINSTON, CHAS., Chicago, Illinois.

8 specimens carboniferous plants — Pennsylvania and Rhode Island.

DEPARTMENT OF ZOÖLOGY.

(ACCESSIONS ARE BY GIFT UNLESS OTHERWISE DESIGNATED.)

ABBOTT, J. B., Chicago, Illinois.

1 moth — Chicago, Illinois.

ALTSHELER, B., Louisville, Kentucky.

3 ostrich skins.

1 piece of skin (head) of an Oryx.

2 mammals (skins only).

3 mammals (skulls, scalps and skins).

6 mammals (skulls and scalps only).

16 mammals (skulls and entire skins) — British East Africa.

BARKER, MRS. F., Chicago, Illinois.

1 specimen of brain coral.

1 specimen of sea fan.

2 specimens of sponges.

BARNES, JUDGE R. M., Lacon, Illinois.

1 Trumpeter Swan.

1 Whistling Swan.

2 bodies of Trumpeter Swans.

1 body of Whistling Swan.

BEATY, W. L., Homestake, Montana.

2 wolf skulls — Homestake, Montana.

CLARK, B. PRESTON, Boston, Massachusetts.

1 Sphinx Moth — Guerro Mill., Hidalgo, Mexico.

CORWIN, MRS. C. A., Chicago, Illinois.

1 House Wren — Chicago, Illinois.

CORY, MRS. C. B., Chicago, Illinois.

1 box Turtle — Kelsey Lake, Dowagiac, Michigan.



BIRD LIFE ON WALRUS ISLAND, BERING SEA.
Taxidermy by L. L. Pray. Background painted by C. A. Corwin.

CURTISS, MISS E., Chicago, Illinois.

- 1 dragonfly — Bahamas.
- 150 butterflies and moths — the World.
- 169 beetles — United States.
- 105 beetles — foreign countries.

DERBY, W. M., JR., Chicago, Illinois.

- 1 Ruddy Duck — Illinois.

FIELD MUSEUM OF NATURAL HISTORY.

Collected by M. P. Anderson:

- 8 mammals — Venezuela.
- 219 bird skins — North West Peru.
 - 1 box of accessory material — Venezuela.
- 182 bird skins — North West Peru.
- 69 mammals.
 - 1 mammal (skin only).
 - 7 mammal skulls — North West Peru.
- 18 bats — Colon and Maracaibo, Venezuela.
- 18 mammals.
 - 4 mammal skulls.
 - 1 bat — Peru.
- 55 bird skins — Peru.
- 50 bird skins — Lake Junin, Peru.
- 16 mammals.
 - 2 mammals (skins only) — Lake Junin, Peru.
 - 1 mammal skull — Salaverry, Peru.
 - 4 land shells.
 - 5 crustaceans.
 - 3 snakes.
 - 6 toads.
 - 16 lizards.
 - 35 fish — Venezuela and Peru.
 - 6 snakes — Chimbote, Peru.
 - 2 lizards — Near Chimbote, Peru.
- 514 spiders, bugs, grasshoppers, crickets, moths, butterflies, beetles, flies, bees, wasps, etc. — Peru, South America.

Collected by R. H. Becker:

- 1 lantern fly.
- 2 millipedes.
- 4 moth larvæ — Santo Amaro, Bahia, Brazil.
- 1 centipede.
- 1 ear-wig — Northern Trinidad.
- 119 mammals.
 - 16 mammal skulls.
 - 12 mammals (skins only) — Brazil.
 - 13 snakes.
 - 1 lizard — Brazil.
- 372 bird skins — Brazil.
- 145 bird skins — Brazil.
- 45 mammals.
- 60 mammals — Rio das Velhas, near Lagoa Santa, Brazil.

- 117 bird skins — Rio Preto Region, Brazil.
- 5 mammals.
- 6 mammal skulls — Trinidad.
- 29 bird skins.
- accessories for group of oil birds (eggs, nests, etc.) — Trinidad.
- 63 mammals.
- 18 mammal skulls.
- 3 mammals (skins only).
- 79 bats — Rio Preto Region, Brazil.
- 11 fish — Junction of Rio Grande and Rio Sao Francisco, Brazil.
- Collected by J. Friesser:
 - 18 bird skins — Kenai Peninsula, Alaska.
- Collected by W. J. Gerhard:
 - 24 dragonflies, bugs, grasshoppers, butterflies, moths, beetles, etc. — Northern Indiana and Northern Illinois.
- Collected by S. E. Meek:
 - 1 caiman — Lake Nicaragua, Nicaragua.
 - 11 bats — Panama.
- Collected by W. H. Osgood and M. P. Anderson:
 - 64 bats — Panama.
- Purchases:
 - 39 Arctic birds — Bering Sea, Alaska and Siberia.
 - 3,321 bird skins — United States.
 - 1 cardinal — Illinois and Wisconsin.
 - 2 song sparrows — Illinois and Wisconsin.
 - 1 giant clam — Madagascar.
 - 1 albino crow.
 - 2 passenger pigeons — Dekalb County, Indiana.
- FIELD, JOSEPH N., Expedition.
 - 599 shells — New Britain and German New Guinea.
- FRIESSER, J., Chicago, Illinois.
 - 1 mammal skull.
- GILLILAND, C. H., Trenary, Michigan.
 - 1 specimen of an abnormal four day old kitten — Trenary, Michigan.
- HANDY, COL. WM. J., Pasadena, California.
 - 1 Venus flower-basket sponge — Philippine Islands.
- HILL, A. L., Sterling, Illinois.
 - 4 plant lice — Rock River, Sterling, Illinois.
- JEONESCN, PROF. THEO., Chicago, Illinois.
 - 1 chimpanzee — Central Africa.
- LEOTANL, FELIX, Port-of-Spain, Trinidad.
 - 1 snake — Near Port-of-Spain, Trinidad.
- LILJEBLAD, E., Chicago, Illinois.
 - 1 mantispa — Palos Park, Illinois.
 - 10 Insects — Edgebrook, Illinois.
 - 2 wasps — Edgebrook, Illinois.
 - 4 bugs — Miller, Indiana.
- MCCORMICK, CYRUS H., Chicago, Illinois.
 - 2 beetles — Brazil.
- MESSINGER, JOE, Chicago, Illinois.
 - 1 albino mandril.

- MILLSPAUGH, MRS. C. F., Chicago, Illinois.
19 spiders — Ephraim, Door County, Wisconsin.
- MILLSPAUGH, C. F., Chicago, Illinois.
1 mayfly — Chicago, Illinois.
- NOTTER, MISS M., Chicago, Illinois.
1 roach — Chicago, Illinois (ex Tropics).
- PAXON, MAHLAN, Bluffton, Indiana.
1 mandarin duck.
- PIKE, EUGENE S., Chicago, Illinois.
1 pair elk horns.
- PILE, JAMES H., Wayne, Nebraska.
1 map terrapin — Wayne, Nebraska.
- PORTER, A. F., Decorah, Iowa.
1 beetle — British Guiana, South America.
27 beetles — West Indies.
- PRAY, L. L., Chicago, Illinois.
25 bird lice — Chicago, Illinois.
- SASKO, PROF. V. G., Chicago, Illinois.
2 spider wasps — Ogden, Utah.
- SETON, ERNEST T., Greenwich, Connecticut.
2 weasels.
2 stoats.
2 red-backed mice.
4 wood mice — England (exchange).
- SIEGEL COOPER & COMPANY, Chicago, Illinois.
1 monkey — South America.
1 South African baboon — South Africa.
- SKINNER, DR. HENRY, Philadelphia, Pennsylvania.
2 butterflies — Beaver Canyon, Idaho.
- STODDARD, H. L., Chicago, Illinois.
1 Say's bat — Sumpter, Sauk County, Wisconsin.
5 fleas — Miller, Indiana.
10 fleas — Willow Springs, Illinois.
- WALTERS, L. L., Chicago, Illinois.
3 fleas — Chicago, Illinois.
- WEGG, HAROLD, Chicago, Illinois.
1 box of bird eggs (205) — Colorado.
- WILLIAMSON, E. B., Bluffton, Indiana.
1 young red-shouldered hawk — Bluffton, Indiana.
1 young red-tailed hawk — Bluffton, Indiana.
1 Canada goose.
1 common loon — Bluffton, Indiana.
1 barn owl — Bluffton, Indiana.
1 red-shouldered hawk — Bluffton, Indiana.
1 red-tailed hawk — Bluffton, Indiana.
1 yellow billed cuckoo — Bluffton, Indiana.
1 horned owl — Bluffton, Indiana.
1 bittern — Bluffton, Indiana.
- WOLCOTT, A. B., Chicago, Illinois.
5 insects — Chicago, Illinois.
4 beetles — Beverly Hills, Illinois.

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Made by the section:

423 negatives of Museum specimens, etc., 3040 prints from the same, 63 lantern slides, 20 enlargements, 33 negatives developed for Museum field expeditions, 20 positives for use in making large negatives.

Made by R. H. Becker:

100 landscapes, birds, etc. — South America.

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Academy of Science, Topeka	2
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Harvard University, Cambridge	2
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Michigan College of Mines, Houghton	1
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St. Louis University, St. Louis	1
University of Missouri, Columbia	2
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MONTANA	
Agricultural Experiment Station, Bozeman	2
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Nebraska Academy of Sciences, Lincoln	1
Agricultural Experiment Station, Lincoln	4
Geological Survey, Lincoln	1
NEVADA	
State University, Reno	1
NEW HAMPSHIRE	
College of Agriculture, Durham	4
Forestry Commission, Concord	1
NEW JERSEY	
Agricultural Experiment Station, Trenton	10
Craftsman, The, Eastwood	2
Geological Survey, Trenton	2
Horticultural Society, Trenton	1

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University of North Dakota, University	1
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Lloyd Library, Cincinnati	2
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State University, Columbus	5
University of Cincinnati, Cincinnati	2
Wilson Ornithological Club, Oberlin	1
OKLAHOMA	
Agricultural Experiment Station, Stillwater	2
Geological Survey, Norman	1
OREGON	
Agricultural Experiment Station, Corvallis (gift)	5
State Board of Forestry, Salem	1
Timberman, The, Portland (gift)	1
PENNSYLVANIA	
Agricultural Experiment Station, Harrisburg	4
American Journal of Pharmacy, Philadelphia	1
American Philosophical Society, Philadelphia	1
Association of Engineering Societies, Philadelphia	3
Bryn Mawr College, Bryn Mawr	2
Carnegie Institute, Pittsburgh	3
Carnegie Library, Pittsburgh	3
Carnegie Museum, Pittsburgh	3
Delaware County Institute of Science, Media	1
Dropsie College, Philadelphia	1
Engineers' Society of Western Pennsylvania, Pittsburgh	2
Franklin Institute, Philadelphia	2
Pennsylvania Museum and School of Industrial Art, Philadelphia	1
Philadelphia Academy of Natural Sciences, Philadelphia	1
Philadelphia College of Physicians, Philadelphia	1
Philadelphia Commercial Museum, Philadelphia	1
Philadelphia Numismatics and Antiquarian Society, Philadelphia	1
State Department of Agriculture, Harrisburg	1
Topographic and Geologic Survey, Harrisburg	4
United States Indian School, Carlisle	2
University of Pennsylvania, Philadelphia	4
Wagner Free Institute of Science, Philadelphia	2
Wistar Institute of Anatomy and Biology, Philadelphia	3
Wyoming Historical and Geological Society, Wilkesbarre	1
PHILIPPINE ISLANDS	
Bureau of Education, Manila	5
Department of the Interior, Bureau of Science, Manila	7
RHODE ISLAND	
Agricultural Experiment Station, Kingston	3
Providence Public Library, Providence	2
Roger Williams Park Museum, Providence	1
SOUTH CAROLINA	
Charleston Museum, Charleston	1
Department of Agriculture, Commerce and Industries, Clemson	1
SOUTH DAKOTA	
Agricultural Experiment Station, Brookings	4
Huron College, Huron	1
State Geological and Biological Survey, Vermillion	1

TENNESSEE

Agricultural Experiment Station, Nashville	3
State Geological Survey, Nashville	19

TEXAS

Scientific Society, San Antonio	1
University of Texas, Austin	6

UTAH

Agricultural Experiment Station, Logan	6
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VERMONT

State Forester, Burlington	2
University of Vermont, Burlington	4

VIRGINIA

Agricultural Experiment Station, Blacksburg	2
Geological Survey, Charlottesville	1
University of Virginia, Charlottesville	2
Virginia State Library, Richmond	3

WASHINGTON

Agricultural Experiment Station, Pullman	2
State Geological Survey, Olympia	1
State Library, Seattle	2
State Museum, Seattle	1

WASHINGTON, D. C.

Biological Society, Washington	1
Carnegie Endowment for International Peace, Washington	1
International Bureau of American Republics, Washington	2
National Academy of Sciences, Washington	2
National Educational Association, Washington	2
National Geographical Society, Washington	2
United States Government, Washington	510

WEST VIRGINIA

Agricultural Experiment Station, Morgantown	3
Forest, Fish and Game Warden, Bellington (gift)	1
University of West Virginia, Morgantown	1

WISCONSIN

Archæological Society, Milwaukee	1
Beloit College, Beloit	2
Geological and Natural History Survey, Madison	1
History Commission, Madison	1
Wisconsin Natural History Society, Madison	1
State Historical Society, Madison	2
State Horticultural Society, Madison	2
University of Wisconsin, Madison	11

WYOMING

Agricultural Experiment Station, Laramie	4
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Alexander, Charles P., Ithaca, New York	1
Ames, Oakes, North Easton, Massachusetts	8



SLAB 4X7 FEET ON WHICH ARE SHOWN THE FOSSIL SKELETONS OF TWENTY-FIVE WATER DEER (*Leptomeryx reevesi*)
FROM BAD LANDS, SOUTH DAKOTA.

Arthur, Joseph C., Lafayette, Indiana	1
Barker, Mrs. Frank W., Chicago (gift)	10
Bean, Tarleton H., Albany, New York	1
Bingham, Hiram, New Haven, Connecticut	8
Brandegee, Townshend S., Berkeley, California	1
Brown, Rome G., Minneapolis, Minnesota (gift)	1
Burnett, W. L., Fort Collins, Colorado	4
Casey, Thomas L., Washington, D. C. (gift)	3
Chalfant, Mrs. F. H., Pittsburgh, Pennsylvania (gift)	1
Chamberlain, Ralph V., Philadelphia, Pennsylvania	1
Crook, A. K., Springfield, Illinois	2
Dunn, Elizabeth Hopkins, Woods Hole, Massachusetts	1
Eigenmann, Carl H., Bloomington, Indiana	1
Evans, Alexander W., New Haven, Connecticut	43
Ford, W. E., New Haven, Connecticut	6
Francis, David R., St. Louis, Missouri (gift)	2
Gerhard, William J., Chicago (gift)	85
Girty, George H., Washington, D. C.	1
Goldman, E. A., Washington, D. C.	6
Harris, Gilbert D., Ithaca, New York	1
Heller, A. A., Chico, California	1
Hopkins, T. C., Syracuse, New York	1
Kearney, T. H., Washington, D. C.	1
Laufer, Berthold, Chicago (gift)	9
Lewis, A. B., Chicago (gift)	17
Lindley, Curtis H., San Francisco, California (gift)	3
Marks, E. L., Cambridge, Massachusetts	19
Meek, Mrs. Seth E., Chicago (gift)	3
Millsbaugh, Charles F., Chicago	82
Mitchell, Alexander N., Minneapolis, Minnesota	1
Muller, Hugo, Manila, Philippine Islands	1
Osborn, Henry F., New York City	54
Pellett, Frank C., Atlantic, Iowa (gift)	5
Rehn, James A. G., Philadelphia, Pennsylvania	1
Schubert, Charles, New Haven, Connecticut	41
Simms, S. Chapman, Chicago (gift)	187
Skinner, Henry, Philadelphia, Pennsylvania	1
Smith, Huron H., Chicago (gift)	9
Smith, J. D., Baltimore, Maryland	1
Starr, Frederick, Chicago	13
Strong, R. M., Chicago	3
Taubenhaus, J. J., Newark, Delaware (gift)	2
Thompson, Joseph G., Sausalites, California (gift)	13
Vandenburgh, J., Berkeley, California	4
Washington, Henry S., Washington, D. C.	11
Weller, Stuart, Chicago	1
Wickham, H. F., Philadelphia, Pennsylvania	1
Williamson, E. B., Bluffton, Indiana (gift)	7
Williston, Samuel W., Chicago	7
Wyer, Raymond, Muskegon, Michigan (gift)	1

AFRICA

Biologisch-Landwirtschaftliches Institut, Amani	1
Botanic Society, Pietermaritzburg, Natal	1
Department of Agriculture, Cape Town	2
Department of Mines, Pretoria, Transvaal	1
East Africa and Uganda Natural History Society, Nairobi	1
Geological Society, Johannesburg	2
Institut de Carthage, Tunis	1
Rhodesia Scientific Association, Bulawayo	1
Royal Society, Cape Town	1
South African Museum, Cape Town	1
Transvaal Museum, Pretoria	1

ARGENTINA

Facultad de Filosofia y Letras, Buenos Aires	1
Museum de La Plata, La Plata	3
Museo Nacional, Buenos Aires	2
Universidad Nacional de La Plata, Buenos Aires	6

AUSTRALIA

Australian Ornithologist's Union, Melbourne	1
Botanic Gardens and Government Domains, Sydney	4
Department of Agriculture, Adelaide	2
Department of Agriculture, Melbourne	1
Department of Agriculture, Sydney	3
Department of Agriculture, Hobart, Tasmania	1
Department of Fisheries, Sydney	1
Department of Mines, Sydney	3
Field Naturalists' Club, Brisbane	1
Field Naturalists' Club, Melbourne	1
Geological Survey, Perth	7
Government of the Commonwealth, Melbourne	5
Linnean Society of New South Wales, Sydney	1
Melbourne University, Melbourne	1
National Museum, Melbourne	1
Natural History and Scientific Society, Perth	2
Public Library, Museum and Art Gallery, Adelaide	1
Queensland Museum, Brisbane	3
Royal Anthropological Society of Australasia, Sydney	3
Royal Society, Hobart, Tasmania	21
Royal Society of New South Wales, Sydney	1
Royal Society of Queensland, Brisbane	1
Royal Zoological Society of New South Wales, Sydney	1
South Australian Ornithological Association, Adelaide	1
Technical Museum, Sydney	1
Western Australian Museum and Art Gallery, Perth	1

AUSTRIA

K. K. Franz-Josephs-Universität, Czernowitz	1
K. K. Naturhistorisches Hofmuseum, Vienna	1
K. K. Zoologisch-Botanische Gesellschaft, Vienna	1
Naturhistorisches Landesmuseum von Kärnten, Klagenfurt	1
Naturwissenschaftlicher Verein, Vienna	1

Naturwissenschaftlicher Verein für Steiermark, Graz	13
Verein für Höhlenkunde in Österreich, Graz	1

AUSTRIA-HUNGARY

K. Akademie der Wissenschaften, Cracow	1
Kir. Magyar-Természettudományi Társulat, Budapest	1
Magyar Ornithologiai Zözpont, Budapest	1
Ungar. Akademie der Wissenschaft, Budapest	2

BELGIUM

Académie Royale des Sciences, des Lettres et des Beaux-Arts de Belgique, Brussels	2
Institut Géologique, Louvain	1
Instituts Solvay, Brussels	4
Jardin Botanique de L'Etat, Brussels	2
Musée Royal d'Histoire Naturelle de Belgique, Brussels	1
Musées Royaux des Arts Décoratifs et Industriels, Brussels	1
Société d'Archéologie, Brussels	2
Société Royale de Botanique de Belgique, Brussels	1

BOHEMIA

Böhm. Naturw. Landesdurchforschung, Prague	1
Deutscher Naturwissenschaftlich-Medizinischer Verein für Böhmen "Lotos," Prague	
Königlich-Böhmisches Museum, Prague	11

BORNEO

Sarawak Museum, Sarawak	2
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BRAZIL

Campinas Centro de Ciencia, Sao Paulo	1
Instituto Agronomico de Estado, Sao Paulo	1
Museu Goeldi, Para	2
Museu Paulista, Sao Paulo	3
Sociedade Scientifica, Sao Paulo	1

CANADA

Department of Agriculture, Ottawa	12
Department of Agriculture, Victoria	5
Department of Indian Affairs, Ottawa	2
Department of the Interior, Geological Survey, Ottawa	29
Department of Lands, Victoria	1
Department of Marine and Fisheries, Ottawa	3
Department of Mines, Ottawa	1
Department of Mines, Victoria	2
McGill University, Montreal	4
Minister of Education, Toronto	2
Naturaliste Canadien, Chicoutimi	1
Numismatic and Antiquarian Society, Montreal	1
Ottawa Field Naturalists' Club, Ottawa	1
Provincial Museum, Victoria	2
Royal Society, Toronto	1

CEYLON

Ceylon Agricultural Society, Colombo	1
Colombo Museum, Colombo	2
Royal Botanic Gardens, Peradeniya	3

CHILE

Biblioteca Nacional, Santiago de Chile	4
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CHINA

Botanical and Forestry Department, Hongkong	1
Royal Asiatic Society, North China Branch, Shanghai	33

COSTA RICA

Museo Nacional, San José	1
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CUBA

Agricultural Experiment Station, Porto Rico	1
Biblioteca Nacional, Havana	2
Estacion Central Agronomico, Santiago de las Vegas	1
Universidad de La Habana, Havana	2

DENMARK

Botanical Garden, Copenhagen	4
Naturhistorisk Forening, Copenhagen	4
Société Botanique de Copenhagen, Copenhagen	1
Société Royale des Antiquaires du Nord, Copenhagen	1

ECUADOR

Biblioteca Municipal, Guayaquil	7
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EGYPT

Egyptian Government School of Medicine, Cairo	3
Institut Egyptien, Cairo	1
Survey Department, Giza	1

ENGLAND

Anthropological Institute of Great Britain and Ireland, London	1
Ashmolean Natural History Society of Oxfordshire, Oxford	1
Birmingham Natural History and Philosophical Society, Birmingham	2
Brighton and Hove Natural History and Philosophical Society, Brighton	1
British Association for the Advancement of Science, London	1
British Museum, London	8
British Museum (Natural History), London	5
Cambridge Philosophical Society, Cambridge	2
Cambridge University Library, Cambridge	8
Cheltenham Public Library, Art Gallery and Museum, Cheltenham	1
Croydon Natural History and Scientific Society, Croydon	1
Ealing Scientific and Microscopical Society, London	1
Entomological and Natural History Society, London	1
Great Britain Geological Survey, London	2
Horniman Museum, London	2
Hull Municipal Museum, Hull	4
Imperial Bureau of Entomology, London	2
Imperial College of Science and Technology, London	1
Japan Society, London	3
Lancashire Sea Fisheries Laboratory, Liverpool	1
Linnean Society, London	3
Liverpool Biological Society, Liverpool	1
Liverpool Geological Society, Liverpool	1
Liverpool Marine Biological Station, Liverpool	1
London Library, London	3
London Zoological Society, London	3

Manchester Field Naturalists' and Archæologists' Society, Manchester . . .	1
Manchester Museum, Manchester	1
Marine Biological Association of the United Kingdom, Plymouth . . .	1
Natural History Society of Northumberland, Durham and Newcastle-on-Tyne	2
Oxford Delegates of University Museum, Oxford	1
Plymouth Institute, Plymouth	1
Royal Archæological Institute of Great Britain and Ireland, London . .	1
Royal Botanic Gardens, Kew	2
Royal Colonial Institute, London	1
Royal Cornwall Polytechnic Society, Falmouth	1
Royal Geographical Society, London	2
Royal Horticultural Society, London	1
Royal Society, London	2
Royal Society of Arts, London	2
Scientific and Field Naturalists' Club, Hull	1
South London Entomological and Natural History Society, London . .	1
Tring Zoological Museum, Tring	1
University College, London	1
Wellcome Chemical Research Laboratories, London	7

FRANCE

Académie des Sciences, Paris	2
Annales des Mines, Paris	2
L'Association des Naturalistes, Levallois-Perret	2
École d'Anthropologie, Paris	1
École des Langues Orientales Vivantes, Paris	7
Faculté des Sciences, Marseille	1
Laboratoire de Zoologie et de Physiologie Maritimes, Concarneau . .	21
Ministère de l'Instruction Publique et des Beaux Arts, Paris	1
Musée d'Histoire Naturelle, Paris	1
Museum d'Histoire Naturelle, Marseille	6
Museum d'Histoire Naturelle et d'Ethnographie, Havre	1
Revue Bretonne de Botanique, Rennes	1
Revue Critique de Paléozoologie, Paris	1
Revue Scientifique du Bourbonnais et du Centre de la France, Moulins .	1
Société Botanique de France, Paris	3
Société d'Études des Sciences Naturelles, Rheims	1
Société d'Histoire Naturelle, Colmar	1
Société d'Histoire Naturelle des Ardennes, Charleville	1
Société de Géographie, Paris	1
Société de Géographie, Toulouse	1
Société d'Horticulture et de Botanique, Marseille	1
Société des Américanistes, Paris	1
Société des Études Scientifiques, Angers	2
Société des Sciences de Nancy, Nancy	1
Société des Sciences Naturelles, La Rochelle	1
Société Géologique du Nord, Lille	1
Société Nationale d'Agriculture, Paris	1
Société Nationale d'Agriculture, Sciences et Arts, Angers	1
Société Nationale d'Horticulture, Paris	1
Société Zoologique de France, Paris	1

GERMANY

Bayerische Botanische Gesellschaft, Munich	2
Botanische Staatsinstitute, Hamburg	4
Botanischer Verein, Brandenburg	1
Botanischer Verein, Königsberg	11
Deutsche Dendrologische Gesellschaft, Bonn-Poppelsdorf	21
Deutsche Geologische Gesellschaft, Berlin	4
Deutsche Gesellschaft für Anthropologie, Ethnologie und Urgs., Berlin	1
Deutsche Gesellschaft für Volkstümliche Naturkunde, Berlin	2
Deutscher Seefischerei-Verein, Berlin	2
Deutsches Entomologisches Museum, Berlin	3
Geographische Gesellschaft, Hamburg	1
Geographische Gesellschaft, Lübeck	1
Gesellschaft für Anthropol. und Urgeschichte der Oberlausitz, Görlitz	1
Gesellschaft für Beförderung der Gesamten Naturwissenschaften, Marburg	1
Gesellschaft für Erdkunde, Berlin	2
Institut für Mineralogie und Petrographie, Leipzig	1
Jahres-Verzeichnis der an den Deutschen Univ. Erschienenenschriften, Berlin	1
Kaiser Wilhelms Universität, Strassburg	1
K. Bayer. Akademie der Wissenschaften, Munich	5
K. Bayer. Ludwig-Maximilians-Universität, Munich	3
K. Bergakademie, Clausthal	1
K. Bibliothek, Berlin	2
K. Botanischer Garten und Museum, Berlin	2
K. Georg-Augustus Universität, Göttingen	5
K. Museum für Völkerkunde, Berlin	3
K. Preussische Akademie der Wissenschaften, Berlin	2
K. Sächs. Bergakademie, Freiburg	1
K. Sächs. Gesellschaft der Wissenschaften, Leipzig	3
K. Sammlungen für Kunst und Wissenschaft, Dresden	2
K. Zoologisches und Anthropologisch-Ethnographisches Museum, Dresden	2
Nassauischer Verein für Naturkunde, Wiesbaden	1
Naturforschende Gesellschaft, Freiburg	3
Naturhistorische Gesellschaft, Hannover	1
Naturhistorische Gesellschaft, Nuremberg	2
Naturhistorischer Verein, Bonn	3
Naturhistorisches Museum, Hamburg	3
Naturwissenschaftliche Gesellschaft "Isis," Dresden	1
Naturwissenschaftlicher Verein für Schleswig-Holstein, Kiel	1
Naturwissenschaftlicher Verein für Schwaben und Neuburg, Augsburg	2
Naturwissenschaftliches Museum, Crefeld	3
Schlesische Gesellschaft für Vaterländische Kultur, Breslau	2
Senckenbergische Naturforschende Gesellschaft, Frankfurt a. M.	8
Stadt Bibliothek, Hannover	1
Thüringischer Botanischer Verein, Weimar	1
Universitäts Bibliothek, Bonn	29
Universitäts Bibliothek, Kiel	1
Verein für Erdkunde, Darmstadt	2
Verein für Erdkunde, Leipzig	2

Verein für Volkskunde, Berlin	2
Wissenschaftliche Anstalten, Hamburg	3
Zoologisches Institut der Universität, Strassburg	2
Zoologisches Museum, Berlin	2

INDIA

Agri-Horticultural Society, Madras	1
Anthropological Society, Bombay	1
Archæological Survey, Burma	1
Archæological Survey, Calcutta	7
Asiatic Society of Bengal, Calcutta	2
Baluchistan Forest Administration, Calcutta (gift)	19
Department of Agriculture, Bombay	1
Department of Agriculture, Madras	4
Department of Agriculture, Pusa	2
Geological Survey, Calcutta	5
Indian Museum, Calcutta	5
Royal Botanic Garden, Calcutta	1

IRELAND

Belfast Natural History and Philosophical Society, Belfast	1
Belfast Naturalists' Field Club, Belfast	1
Department of Agriculture, Fisheries Branch, Dublin	2
National Museum of Science and Art, Dublin	3
Royal Dublin Society, Dublin	3
Royal Irish Academy, Dublin	7
Royal Zoological Society, Dublin	2
Trinity College, Dublin	2

ITALY

Accademia di Scienze, Acireale	1
Accademia Reale delle Scienze, Turin	1
American Society, Rome	1
Museo de Zoologia et di Anatomie Comparata, Turin	1
R. Accademia dei Lincei, Rome	2
R. Accademia delle Scienze, Naples	2
R. Orto Botanico e Giardino Coloniale, Palermo	1
R. Scuola Superiore d'Agricoltura, Portici	1
Società di Naturalisti, Naples	1
Società Geografica Italiana, Rome	1
Società Italiana di Antropologia, Florence	1
Società Romana di Antropologia, Rome	1
Società Toscana di Scienze Naturali, Pisa	2

JAMAICA

Department of Agriculture, Kingston	1
Jamaica Institute, Kingston	1

JAPAN

Anthropological Society of Tokyo, Tokyo	1
Bureau of Productive Industry Formosa Government, Taihoku	1
Deutsche Gesellschaft für Natur- und Volkerkunde Ostasiens, Tokyo	1
Geological Survey, Tokyo	1
Imperial University of Tokyo, College of Science, Tokyo	7

428 FIELD MUSEUM OF NATURAL HISTORY — REPORTS, VOL. IV.

Tohoku Imperial University, Sendai	I
Tokyo Botanical Society, Tokyo	I
JAVA	
Bataviaasch Genootschap van Kunsten en Wetenschappen, Batavia . . .	5
Department of Agriculture, Buitenzorg	9
Nederlandsch-Indie K. Institut Taal-Land-en Volkenkunde, Batavia . . .	2
MEXICO	
Direccion General de Estadistica, Mexico	8
Instituto Geologico de Mexico, Mexico	I
Museo Nacional de Arqueologia, Historia y Etnologia, Mexico	2
Sociedad Cientifico "Antonio Alzate," Mexico	2
NETHERLANDS	
K. Akademie van Wetenschappen, Amsterdam	8
Museum voor Land-en Volkenkunde, Rotterdam	I
Nederlandsche Dierkundige Vereeniging, Leiden	2
Rijks Ethnographisches Museum, Leiden	16
Rijks Herbarium, Leiden	2
Stats Bibliotheek, Haarlem	I
Universiteit van Amsterdam, Amsterdam	I
NEW ZEALAND	
Acclimatization Society, Wellington	I
Department of Agriculture, Wellington	2
Department of Mines, Wellington	I
Dominion Museum, Wellington	2
NORWAY	
Bergen Museum	I
PERU	
Cuerpo de Ingenieros de Minas, Lima	I
Sociedad Geografica, Lima	I
PORTUGAL	
Academia Real das Sciencias, Lisbon	7
Collegio de S. Fiel, Lisbon	2
Société Portugaise de Sciences Naturelles, Lisbon	3
ROUMANIA	
Jassy Institute, Jassy	I
RUSSIA	
Académie Impériale des Sciences, Petrograd	16
Imperial Botanical Gardens, Petrograd	I
Kaukasisches Museum, Tiflis	2
Societas pro Fauna et Flora Fennica, Helsingfors	I
Société Impériale des Naturalistes, Moscow	3
Société Impériale des Naturalistes, Petrograd	I
Société Impériale Russe de Géographie, Petrograd	I
Société Ouralienne d'Amateurs des Sciences Naturelles, Ekaterinburg . . .	I
SCOTLAND	
Fishery Board, Edinburgh	I
Natural History Society, Glasgow	I
Perthshire Society of Natural Science, Perth	I

Royal Botanic Garden, Edinburgh	31
Royal Scottish Museum, Edinburgh	1
Royal Society, Edinburgh	2
SPAIN	
Broteria, Salamanca	2
Museo de Ciencias Naturales, Madrid	2
R. Academia de Ciencias, Madrid	2
Sociedad Española de Historia Natural, Madrid	2
SWEDEN	
K. Biblioteket, Stockholm	1
K. Svenska Vetenskapsakademien, Stockholm	6
K. Vitt. Hist. och Antik. Akademien, Stockholm	1
Regia Societas Scientiarum, Upsala	1
Svenska Sällskapet för Antropologi och Geografi, Stockholm	1
Upsala University, Upsala	3
SWITZERLAND	
Conservatoire et Jardin Botaniques, Geneva	2
Geographisch-Ethnographische Gesellschaft, Zürich	1
Musée Ethnographique, Neuchâtel	1
Musée Zoologique, Lausanne	1
Naturforschende Gesellschaft, Basel	1
Naturforschende Gesellschaft, Bern	1
Ostsch. Geograph. Comm. Gesellschaft, St. Gall	1
Société de Physique et d'Histoire Naturelle, Geneva	1
Société Helvétique des Sciences Naturelles, Bern	1
Société Neuchâteloise de Géographie, Neuchâtel	2
Société Vaudoise des Sciences Naturelles, Lausanne	2
Société Zoologique, Geneva	1
VENEZUELA	
Museos Nacionales, Caracas	2
WALES	
National Museum of Wales, Cardiff	1
WEST INDIES	
Imperial Department of Agriculture, Barbadoes	2
YUCATAN	
La Camera Agricultura, Merida	1
Capitan, L., Paris, France	1
Carpenter, G. N., Dublin, Ireland	1
Caziot, C., Nice, Italy (gift)	6
Errera, Leo, Brussels, Belgium	1
Ewart, Alfred L., Melbourne, Australia	8
Fried, Alfred H., Berlin, Germany	1
Friedländer, R., und Sohn, Berlin, Germany	2
Fürbringer, Max, Jena, Germany	1
Gennep, A. van, Neuchâtel, Switzerland	2
Gleerup, G. W. K., Lund, Sweden	1
Gota, Se Faro, Tokyo, Japan	1
Gurney, J. H., Norfolk, England	3
Hamburg, Alexander, Upsala, Sweden	12

Hartland, Edwin Sidney, England	1
Hasse, C., Breslau, Germany	2
Hayrén, Ernst, Helsingfors, Russia (gift)	1
Heck, Ludwig, Germany	1
Janet, Charles, Paris, France	2
Joly, Henri L., London, England	3
Joyce, Thomas A., London, England	5
Koch-Grünberg, Theodor, Freiburg, Germany	4
Lenz, Rudolfo, Santiago de Chile, Chile	4
Ling Roth, H., Halifax, England	2
MacRitchie, David, Edinburgh, Scotland	3
Maiden, J. H., Sydney, Australia	1
Matschie, Paul, Berlin, Germany	6
Merzbacher, Gottfried, Munich, Germany	2
Mogdigliani, E., Florence, Italy	1
Northcote, Thomas W., London, England	9
Outes, Felix F., Buenos Aires, Argentina	4
Pearcey, F. Gordon, Edinburgh, Scotland (gift)	1
Rinné, F., Leipzig, Germany	1
Rivet, P., Paris, France	1
Sapir, Edward, Montreal, Canada	4
Sapper, Karl, Strassburg, Germany	3
Schlagenhaufen, Otto, Zürich, Switzerland	2
Schmidt, P. W., Mödling, Austria	1
Smith, Harlan I., Ottawa, Canada	1
Torres, Luis Maria, Buenos Aires, Argentina	1
Trouessart, E., Paris, France	5
Tuzson, Johann, Budapest, Austria-Hungary (gift)	3
Virchow, Hans, Berlin, Germany	1
Wegner, Richard N., Munich, Germany	2
Weigel, Oswald, Leipzig, Germany (gift)	1
Wülfing, E. A., Heidelberg, Germany	2
Wille, N., Christiania, Norway	2
Wood, Henry Trueman, England (gift)	1
Zimanyi, Karl, Budapest, Austria-Hungary	1



MARBLE HEAD OF TAOIST GOD OF CREATION, CHINA, T'ANG PERIOD (618-906).
The Mrs. T. B. Blackstone Expedition.

ARTICLES OF INCORPORATION

STATE OF ILLINOIS.

DEPARTMENT OF STATE.

WILLIAM H. HINRICHSEN, *Secretary of State.*

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, a Certificate duly signed and acknowledged having been filed in the office of the Secretary of State, on the 16th day of September, A. D. 1893, for the organization of the COLUMBIAN MUSEUM OF CHICAGO, under and in accordance with the provisions of "An Act Concerning Corporations," approved April 18, 1872, and in force July 1, 1872, and all acts amendatory thereof, a copy of which certificate is hereto attached.

Now, therefore, I, William H. Hinrichsen, Secretary of State of the State of Illinois, by virtue of the powers and duties vested in me by law, do hereby certify that the said COLUMBIAN MUSEUM OF CHICAGO is a legally organized Corporation under the laws of this State.

In Testimony Whereof, I hereto set my hand and cause to be affixed the Great Seal of the State. Done at the City of Springfield, this 16th day of September, in the year of our Lord one thousand eight hundred and ninety-three, and of the Independence of the United States the one hundred and eighteenth.

W. H. HINRICHSEN,
Secretary of State.

[SEAL.]

TO HON. WILLIAM H. HINRICHSEN,

SECRETARY OF STATE:

SIR:

We, the undersigned citizens of the United States, propose to form a corporation under an act of the General Assembly of the State of Illinois, entitled "An Act Concerning Corporations," approved April 18, 1872, and all acts amendatory thereof; and that for the purposes of such organization we hereby state as follows, to wit:

1. The name of such corporation is the "COLUMBIAN MUSEUM OF CHICAGO."

2. The object for which it is formed is for the accumulation and dissemination of knowledge, and the preservation and exhibition of objects illustrating Art, Archæology, Science, and History.

3. The management of the aforesaid Museum shall be vested in a Board of FIFTEEN (15) TRUSTEES, five of whom are to be elected every year.

4. The following named persons are hereby selected as the Trustees for the first year of its corporate existence:

Ed. E. Ayer, Charles B. Farwell, George E. Adams, George R. Davis, Charles L. Hutchinson, Daniel H. Burnham, John A. Roche, M. C. Bullock, Emil G. Hirsch, James W. Ellsworth, Allison V. Armour, O. F. Aldis, Edwin Walker, John C. Black, and Frank W. Gunsaulus.

5. The location of the Museum is in the City of Chicago, County of Cook, and State of Illinois.

(Signed),

George E. Adams, C. B. Farwell, Sidney C. Eastman, F. W. Putnam, Robert McMurdy, Andrew Peterson, L. J. Gage, Charles L. Hutchinson, Ebenezer Buckingham, Andrew McNally, Edward E. Ayer, John M. Clark, Herman H. Kohlsaat, George Schneider, Henry H. Getty, William R. Harper, Franklin H. Head, E. G. Keith, J. Irving Pearce, Azel P. Hatch, Henry Wade Rogers, Thomas B. Bryan, L. Z. Leiter, A. C. Bartlett, A. A. Sprague, A. C. McClurg, James W. Scott, George F. Bissell, John R. Walsh, Chas. Fitzsimons, John A. Roche, E. B. McCagg, Owen F. Aldis, Ferdinand W. Peck, James H. Dole, Joseph Stockton, Edward B. Butler, John McConnell, R. A. Waller, H. C. Chatfield-Taylor, A. Crawford, Wm. Sooy Smith, P. S. Peterson, John C. Black, Jno. J. Mitchell, C. F. Gunther, George R. Davis, Stephen A. Forbes, Robert W. Patterson, Jr., M. C. Bullock, Edwin Walker, George M. Pullman, William E. Curtis, James W. Ellsworth, William E. Hale, Wm. T. Baker, Martin A. Ryerson, Huntington W. Jackson, N. B. Ream, Norman Williams, Melville E. Stone, Bryan Lathrop, Eliphalet W. Blatchford, Philip D. Armour.

STATE OF ILLINOIS }
COOK COUNTY } ss.

I, G. R. MITCHELL, a NOTARY PUBLIC in and for said County, do hereby certify that the foregoing petitioners personally appeared before me and acknowledged severally that they signed the foregoing petition as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this 14th day of September, 1893.

G. R. MITCHELL,

[SEAL.]

NOTARY PUBLIC, COOK COUNTY, ILL.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 25th day of June, 1894, the name of the COLUMBIAN MUSEUM was changed to FIELD COLUMBIAN MUSEUM. A certificate to this effect was filed June 26, 1894, in the office of the Secretary of State for Illinois.

CHANGE OF NAME.

Pursuant to a resolution passed at a meeting of the Corporate members held the 8th day of November, 1905, the name of the FIELD COLUMBIAN MUSEUM was changed to FIELD MUSEUM OF NATURAL HISTORY. A certificate to this effect was filed November 10, 1905, in the office of the Secretary of State for Illinois.

AMENDED BY-LAWS.

(FEBRUARY 10, 1913.)

ARTICLE I.

MEMBERS.

SECTION 1. Members shall be of five classes, Annual Members, Corporate Members, Life Members, Patrons and Honorary Members.

SEC. 2. Annual Members shall consist of such persons as are selected from time to time by the Board of Trustees at any of its meetings, and who shall pay an annual fee of ten dollars (\$10.00), payable within thirty days after notice of election, and within thirty days after each recurring annual date. The failure of any person to make such initiatory payment and such annual payments within said time shall, at the option of the Board of Trustees, be sufficient grounds for the forfeiture of an annual membership.

This said annual membership shall entitle the member to:

First.— Free admittance for the member and family, to the Museum on any day.

Second.— Ten tickets every year, admitting the bearer to the Museum on pay days.

Third.— A copy of all publications of the Museum when requested.

Fourth.— Invitations to all special exhibits, receptions, lectures, or other functions which may be given at the Museum.

SEC. 3. The Corporate Members shall consist of the persons named in the articles of incorporation, and of such other persons as shall be chosen from time to time by the Board of Trustees at any of its meetings, upon the recommendation of the Executive Committee; provided, that such persons named in the articles of incorporation shall, within ninety days from the adoption of these By-Laws, and persons hereafter chosen as Corporate Members shall, within ninety days of their election, pay into the treasury the sum of twenty dollars (\$20.00) or more. The failure of any person to make such payment within said time shall, at the option of the Board of Trustees, be ground for forfeiture of his corporate membership. Corporate Members becoming Life Members, Patrons or Honorary Members shall be exempt from dues. Annual meetings of said Corporate Members shall be held at the same place and on the same day that the annual meeting of the Board of Trustees is held.

SEC. 4. Any person paying into the treasury the sum of five hundred dollars (\$500.00), at any one time, shall, upon the unanimous vote of the Board, become a Life Member. Life Members shall be exempt from all dues.

SEC. 5. Patrons shall be chosen by the Board upon recommendation of the Executive Committee from among persons who have rendered eminent service to the Museum. They shall be exempt from all dues, and, by virtue of their election as Patrons, shall also be Corporate Members.

SEC. 6. Honorary Members shall be chosen by the Board from among persons who have rendered eminent service to science, and only upon unanimous nomination of the Executive Committee. They shall be exempt from all dues.

ARTICLE II.

BOARD OF TRUSTEES.

SECTION 1. The Board of Trustees shall consist of fifteen members. The respective members of the Board now in office, and those who shall hereafter be elected, shall hold office during life. Vacancies occurring in the Board shall be filled at a regular meeting of the Board, upon the nomination of the Executive Committee made at a preceding regular meeting, by a majority vote of the members of the Board present.

SEC. 2. Regular meetings of the Board shall be held on the second Monday of each month. Special meetings may be called at any time by the President, and shall be called by the Secretary upon the written request of three Trustees. Five Trustees shall constitute a quorum, except for the election of officers or the adoption of the Annual Budget, when seven Trustees shall be required, but meetings may be adjourned by any less number from day to day, or to a day fixed, previous to the next regular meeting.

SEC. 3. Reasonable written notice, designating the time and place of holding meetings, shall be given by the Secretary.

ARTICLE III.

HONORARY TRUSTEES.

SECTION 1. As a mark of respect, and in appreciation of services performed for the Institution, those Trustees who by reason of inability, on account of change of residence, or for other cause, or from indisposition to serve longer in such capacity, shall resign their place upon the Board, may be elected, by a majority of those present at any regular meeting of the Board, an Honorary Trustee for life. Such Honorary Trustee will receive notice of all meetings of the Board of Trustees, whether regular or special, and will be expected to be present at all such meetings and participate in the deliberations thereof, but an Honorary Trustee shall not have the right to vote.

ARTICLE IV.

OFFICERS.

SECTION 1. The officers shall be a President, a First Vice-President, a Second Vice-President, a Secretary, an Assistant Secretary, and a Treasurer. They shall be chosen by ballot by the Board of Trustees, a majority of those present and voting being necessary to elect. The President, the First Vice-President, and the Second Vice-President shall be chosen from among the members of the Board of Trustees. The meeting for the election of officers shall be held on the second Monday of January of each year, and shall be called the Annual Meeting.

SEC. 2. The officers shall hold office for one year, or until their successors are elected and qualified, but any officer may be removed at any regular meeting of the Board of Trustees by a vote of two-thirds of all the members of the Board. Vacancies in any office may be filled by the Board at any meeting.

SEC. 3. The officers shall perform such duties as ordinarily appertain to their respective offices, and such as shall be prescribed by the By-Laws, or designated from time to time by the Board of Trustees.

ARTICLE V.

THE TREASURER.

SECTION 1. The Treasurer shall be custodian of the funds of the Corporation, except as hereinafter provided. He shall make disbursements only upon warrants drawn by the Director and countersigned by the President. In the absence or inability of the Director, warrants may be signed by the Chairman of the Finance Committee, and in the absence or inability of the President, may be countersigned by one of the Vice-Presidents. But no warrants shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved as hereinafter prescribed. It shall be no part of the duties of the Treasurer to see that the warrants have been issued in conformity with such vouchers.

SEC. 2. The securities and muniments of title belonging to the corporation shall be placed in the custody of some Trust Company of Chicago to be designated by the Board of Trustees, which Trust Company shall collect the income and principal of said securities as the same become due, and pay same to the Treasurer, except as hereinafter provided. Said Trust Company shall allow access to and deliver any or all securities or muniments of title to the joint order of the following officers, namely: The President or one of the Vice-Presidents, jointly with the Chairman, or one of the Vice-Chairmen, of the Finance Committee of the Museum.

SEC. 3. The Treasurer shall give bond in such amount, and with such sureties, as shall be approved by the Board of Trustees.

SEC. 4. All vouchers executed for the payment of liabilities incurred in the administration of the Museum, shall be verified by the Auditor, and approved for payment by the Director, and the Chairman of the Administration Committee. All vouchers executed for expenditures for the construction or reconstruction of the Museum building, or buildings, shall be verified by the Auditor and approved for payment by the Chairman of the Building Committee. All vouchers executed in connection with the investments of the Corporation, or in any way having to do with the endowment funds of the Corporation, shall be verified by the Auditor and approved for payment by the Chairman of the Finance Committee.

SEC. 5. The Harris Trust and Savings Bank of Chicago shall be Custodian of "The N. W. Harris Public School Extension of Field Museum" fund. The Bank shall make disbursements only upon warrants drawn by the Curator of "The N. W. Harris Public School Extension of Field Museum of Natural History" and countersigned by the Auditor of Field Museum of Natural History. In the absence or inability of the said officers, warrants may be signed by such officers as shall be authorized by special resolution of the Board of Trustees of Field Museum of Natural History. But no warrant shall be issued, except in conformity with a regularly prepared voucher, giving the name of the payee and stating the occasion for the expenditure, and verified and approved by the officers above designated. It shall be no part of the duties of the Bank to see that the warrants have been issued in conformity with such vouchers.

ARTICLE VI.

THE DIRECTOR.

SECTION 1. The Board of Trustees shall elect a Director of the Museum, who shall remain in office until his successor shall be elected. He shall have immediate charge and supervision of the Museum, and shall control the operations of the insti-

tution, subject to the authority of the Board of Trustees and its Committees. The Director shall be the official medium of communication between the Board, or its Committees, and the scientific staff and maintenance force.

SEC. 2. There shall be four scientific departments of the Museum — Anthropology, Botany, Geology, and Zoölogy, each under the charge of a Curator, subject to the authority of the Director. The Curators shall be appointed by the Board upon the recommendation of the Director, and shall serve during the pleasure of the Board. Subordinate staff officers in the scientific departments shall be appointed and removed by the Director upon the recommendation of the Curators of the respective Departments. The Director shall have authority to employ and remove all other employees of the Museum.

SEC. 3. The Director shall make report to the Board at each regular meeting, recounting the operations of the Museum for the previous month. At the Annual Meeting, the Director shall make an Annual Report, reviewing the work of the Museum for the previous year, which Annual Report shall be published in pamphlet form for the information of the Trustees and Members, and for free distribution in such number as the Board may direct.

ARTICLE VII.

AUDITOR.

SECTION 1. The Board shall appoint an Auditor, who shall hold his office during the pleasure of the Board. He shall keep proper books of account, setting forth the financial condition and transactions of the Corporation, and of the Museum, and report thereon at each regular meeting, and at such other times as may be required by the Board. He shall certify to the correctness of all vouchers for the expenditure of the money of the corporation.

ARTICLE VIII.

COMMITTEES.

SECTION 1. There shall be five Committees as follows: Finance, Building, Auditing, Administration, and Executive.

SEC. 2. The Finance and Auditing Committees shall each consist of three members, and the Building and Administration Committees shall each consist of five members. All members of these four Committees shall be elected by ballot by the Board at the Annual Meeting, and shall hold office for one year, and until their successors are elected and qualified. In electing the members of these Committees, the Board shall designate the Chairman and Vice-Chairman by the order in which the members are named in the respective Committee; the first member named shall be Chairman, the second named the Vice-Chairman, and the third named, Second Vice-Chairman, succession to the Chairmanship being in this order in the event of the absence or disability of the Chairman.

SEC. 3. The Executive Committee shall consist of the President of the Board, the Chairman of the Finance Committee, the Chairman of the Building Committee, the Chairman of the Administration Committee, the Chairman of the Auditing Committee, and two other members of the Board to be elected by ballot at the Annual Meeting.

SEC. 4. Four members shall constitute a quorum of the Executive Committee; three members shall constitute a quorum of the Administration Committee, and in all other standing Committees, two members shall constitute a quorum. In the

event that, owing to the absence or inability of members, a quorum of the regularly elected members cannot be present at any meeting of any Committee, then the Chairman thereof, or his successor, as herein provided, may summon any member of the Board of Trustees to act in place of the absentee.

SEC. 5. The Finance Committee shall have supervision of investing the endowment and other permanent funds of the Corporation, and the care of such real estate as may become its property. It shall have authority to invest, sell, and reinvest funds, subject to the approval of the Board.

SEC. 6. The Building Committee shall have supervision of the construction, reconstruction, and extension of any and all buildings used for Museum purposes.

SEC. 7. The Executive Committee shall be called together from time to time as the Chairman may consider necessary, or as he may be requested to do by three members of the Committee, to act upon such matters affecting the administration of the Museum as cannot await consideration at the Regular Monthly Meetings of the Board of Trustees. It shall, before the beginning of each fiscal year, prepare and submit to the Board an itemized Budget, setting forth the probable receipts from all sources for the ensuing year, and make recommendations as to the expenditures which should be made for routine maintenance and fixed charges. Upon the adoption of the Budget by the Board, the respective Committees shall be considered as authorized to make the expenditures detailed therein. No increase in the expenditures under any items of the Budget shall be made, except by authority of the Board of Trustees, but the Executive Committee shall have authority, in cases of emergency, to expend a further total sum not exceeding two thousand dollars in any one month.

SEC. 8. The Administration Committee shall have general supervision of the affairs of the Museum. The Committee shall hold one meeting each month with the Director at the Museum within a week preceding each Monthly Meeting of the Board of Trustees.

SEC. 9. The Auditing Committee shall have supervision over all accounting and bookkeeping, and full control of the financial records. It shall cause the same, once each year, or oftener, to be examined by an expert individual or firm, and shall transmit the report of such expert individual or firm to the Board at the next ensuing regular meeting after such examination shall have taken place.

SEC. 10. The Chairman of each Committee shall report the acts and proceedings thereof at the next ensuing regular meeting of the Board.

SEC. 11. The President shall be ex-officio a member of all Committees and Chairman of the Executive Committee. Vacancies occurring in any Committee may be filled by ballot at any regular meeting of the Board.

ARTICLE IX.

NOMINATING COMMITTEE.

SECTION 1. At the November meeting of the Board, each year a Nominating Committee of three shall be chosen by lot. Said Committee shall make nominations for membership of the Finance Committee, the Building Committee, the Administration Committee, and the Auditing Committee, and for two members of the Executive Committee, from among the Trustees, to be submitted at the ensuing December meeting and voted upon at the following Annual Meeting in January.

ARTICLE X.

SECTION 1. Whenever the word "Museum" is employed in the By-Laws of the Corporation, it shall be taken to mean the building in which the Museum as an Institution is located and operated, the material exhibited, the material in study collections, or in storage, furniture, fixtures, cases, tools, records, books, and all appurtenances of the Institution, and the workings, researches, installations, expenditures, field work, laboratories, library publications, lecture courses, and all scientific and maintenance activities.

SEC. 2. These By-Laws may be amended at any regular meeting of the Board of Trustees by a two-thirds vote of all the members present, provided the amendment shall have been proposed at a preceding regular meeting.

HONORARY MEMBERS.

EDWARD E. AYER
HARLOW N. HIGINBOTHAM
CHARLES B. CORY

STANLEY McCORMICK
MRS. TIMOTHY B. BLACKSTONE
NORMAN W. HARRIS

DECEASED.

ROBERT F. CUMMINGS
GEORGE M. PULLMAN
MARY D. STURGES

PATRONS.

ALLISON V. ARMOUR
ERNEST R. GRAHAM
NORMAN W. HARRIS
VERNON SHAW KENNEDY
GEORGE MANIERRE

JOHN S. MILLER
JOHN BARTON PAYNE
FREDERICK W. PUTNAM
FREDERICK J. V. SKIFF
WILLARD A. SMITH

DECEASED.

DANIEL H. BURNHAM
JOSEPH N. FIELD

WILLIAM I. BUCHANAN
EDWIN WALKER

CORPORATE MEMBERS.

ADAMS, GEORGE E.	HIGINBOTHAM, H. N.
ALDIS, OWEN F.	HUTCHINSON, CHARLES L.
ARMOUR, ALLISON V.	
AYER, EDWARD E.	JONES, ARTHUR B.
BARTLETT, A. C.	KENNEDY, VERNON SHAW
BLACK, JOHN C.	KOHLSAAT, HERMAN H.
BLAIR, WATSON F.	
BUTLER, EDWARD B.	LATHROP, BRYAN
CHALMERS, W. J.	McCORMICK, CYRUS H.
CHATFIELD-TAYLOR, H. C.	MANIERRE, GEORGE
CLARK, JOHN M.	MILLER, JOHN S.
CRANE, RICHARD T.	MITCHELL, JOHN J.
EASTMAN, SIDNEY C.	PAYNE, JOHN BARTON
ELLSWORTH, JAMES W.	PECK, FERD. W.
	PORTER, GEORGE F.
FIELD, MARSHALL III	PUTNAM, FREDERICK W.
FIELD, STANLEY	
GAGE, LYMAN J.	REAM, NORMAN B.
GETTY, HENRY H.	RYERSON, MARTIN A.
GRAHAM, ERNEST R.	
GUNSAULUS, FRANK W.	SKIFF, FREDERICK J. V.
GUNTHER, C. F.	SMITH, WILLARD A.
	SPRAGUE, A. A.
	SPRAGUE, A. A., 2D.
HARRIS, NORMAN W.	STONE, MELVILLE E.

DECEASED.

ARMOUR, PHILIP D.	LEITER, L. Z.
BAKER, WILLIAM T.	McCAGG, E. B.
BISSEL, GEORGE F.	McCLURG, A. C.
BLATCHFORD, E. W.	McNALLY, ANDREW
BUCHANAN, W. I.	PATTERSON, ROBERT W.
BUCKINGHAM, EBENEZER	PEARCE, J. IRVING
BURNHAM, DANIEL H.	PETERSON, ANDREW
CRAWFORD, ANDREW	PULLMAN, GEORGE M.
CURTIS, WILLIAM E.	SCHNEIDER, GEORGE
DAVIS, GEORGE R.	SCOTT, JAMES W.
FIELD, JOSEPH N.	SMITH, BYRON L.
FITZSIMONS, CHARLES	STOCKTON, JOSEPH
HALE, WILLIAM E.	WALKER, EDWIN
HARPER, WILLIAM R.	WALLER, R. A.
HATCH, AZEL F.	WALSH, JOHN R.
HEAD, FRANKLIN H.	WILLIAMS, NORMAN
JACKSON, HUNTINGTON W.	

LIFE MEMBERS.

ADAMS, GEORGE E.

ALDIS, OWEN F.

BARRETT, MRS. A. D.

BARRETT, ROBERT L.

BARTLETT, A. C.

BLACKSTONE, MRS. TIMOTHY B.

BLAINE, MRS. EMMONS

BLAIR, CHAUNCEY J.

BLAIR, HENRY A.

BLAIR, WATSON F.

BOOTH, W. VERNON

BUTLER, EDWARD B.

BYLLESBY, H. M.

CARTON, L. A.

CHALMERS, WILLIAM J.

CRANE, CHARLES RICHARD

CRANE, RICHARD T.

CUMMINGS, D. MARK

DEERING, CHARLES

DELANO, FREDERIC A.

DICK, ALBERT BLAKE

DRAKE, TRACY C.

FARWELL, WALTER

FAY, C. N.

FIELD, STANLEY

FULLER, WILLIAM A.

GARTZ, A. F.

GRISCOM, CLEMENT A.

GROMMES, JOHN B.

HAMILL, ERNEST A.

HILL, LOUIS W.

HOROWITZ, L. J.

HOXIE, MRS. JOHN A.

HUGHITT, MARVIN

HUTCHINSON, C. L.

ISHAM, MRS. KATHERINE
PORTER.

JOHNSON, FRANK S.

JOHNSON, MRS. ELIZABETH AYER

JONES, ARTHUR B.

KEEP, CHAUNCEY

KING, FRANCIS

KING, JAMES C.

KIRK, WALTER RADCLIFFE

LAWSON, VICTOR F.

McCORMICK, MRS.

McCORMICK, CYRUS H.

McCORMICK, HAROLD F.

MacVEAGH, FRANKLIN

MASON, WILLIAM S.

MITCHELL, J. J.

NEWELL, A. B.

ORR, ROBERT M.

PAM, MAX

PIKE, EUGENE S.

PORTER, GEORGE F.

PORTER, H. H.

REAM, MRS. CAROLINE P.

REAM, NORMAN B.

REVELL, ALEX. H.

ROSENWALD, JULIUS

RUSSELL, EDMUND A.

RYERSON, MRS. CARRIE H.

RYERSON, MARTIN A.

SMITH, ORSON

SPRAGUE, A. A.

SPRAGUE, A. A., 2D.

STURGES, GEORGE

THORNE, GEORGE R.

WILLARD, ALONZO J.

ANNUAL MEMBERS.

ADAMS, CYRUS H.
ADAMS, MILWARD
ALLERTON, ROBERT H.
ARMOUR, GEORGE A.

BAILEY, EDWARD P.
BECKER, A. G.
BILLINGS, C. K. G.
BILLINGS, DR. FRANK
BOAL, CHARLES T.
BROWN, WILLIAM L.
BURLEY, CLARENCE A.

COMSTOCK, WILLIAM C.
CONOVER, CHARLES H.
COONLEY-WARD, MRS. L. A.
CORWITH, CHARLES R.
CUDAHY, JOHN
CUMMINGS, E. A.
CURTIS, D. H.

DAY, A. M.
DEERING, JAMES
DILLMAN, L. M.

EISENDRATH, W. N.

FAIR, R. M.
FORGAN, JAMES B.
FORSYTH, ROBERT
FRANK, HENRY L.
FULLER, O. F.
FÜRST, CONRAD

GAYLORD, FREDERIC
GLESSNER, J. J.
GOODRICH, A. W.
GORDON, EDWARD K.
GREY, CHARLES F.
GREY, WILLIAM L.
GURLEY, W. W.

HARRIS, GEORGE B.
HARRIS, JOHN F.
HASKELL, FREDERICK T.
HIBBARD, WILLIAM G., JR.
HITCHCOCK, R. M.
HOLT, GEORGE H.
HOPKINS, JOHN P.

INSULL, SAMUEL

JENKINS, GEORGE H.
JONES, J. S.

KEEFER, LOUIS
KEITH, W. SCOTT
KIMBALL, EUGENE S.
KIMBALL, MRS. MARK

LAMB, FRANK H.
LAY, A. TRACY
LEE, BLEWETT
LEIGH, EDWARD B.
LINCOLN, ROBERT T.
LINN, W. R.
LOGAN, F. G.
LORD, J. B.
LOWDEN, FRANK O.
LYTTON, HENRY C.

McCREA, W. S.
McWILLIAMS, LAFAYETTE
MacFARLAND, HENRY J.
MAGEE, HENRY W.
MANSON, WILLIAM
MANSURE, E. L.
MAYER, LEVY
MERRYWEATHER, GEORGE
MEYER, MRS. M. A.
MILLER, CHARLES P.
MOORE, L. T.
MOORE, N. G.
MULLIKEN, A. H.

NATHAN, ADOLPH
NOLAN, JOHN H.
NORTON, O. W.

OEHNE, THEODORE
ORB, JOHN A.
OSBORN, HENRY A.

PALMER, PERCIVAL B.
PARKER, FRANCIS W.
PEARSON, EUGENE H.
PINKERTON, W. A.
PORTER, WASHINGTON

RIPLEY, E. P.
ROSENBAUM, JOSEPH
ROSENFELD, MRS. MAURICE
RUNNELLS, J. S.

SCHMIDT, DR. O. L.
SCHWARTZ, G. A.
SEIPP, MRS. C.
SHEDD, JOHN G.

SHORTALL, JOHN L.
SKINNER, THE MISSES
SOPER, JAMES P.
SOUTHWELL, H. E.
SPENCE, MRS. ELIZABETH E.
SPOOR, J. A.
STOCKTON, JOHN T.
STUART, ROBERT

TEMPLETON, THOMAS

UIHLEIN, EDWARD G.

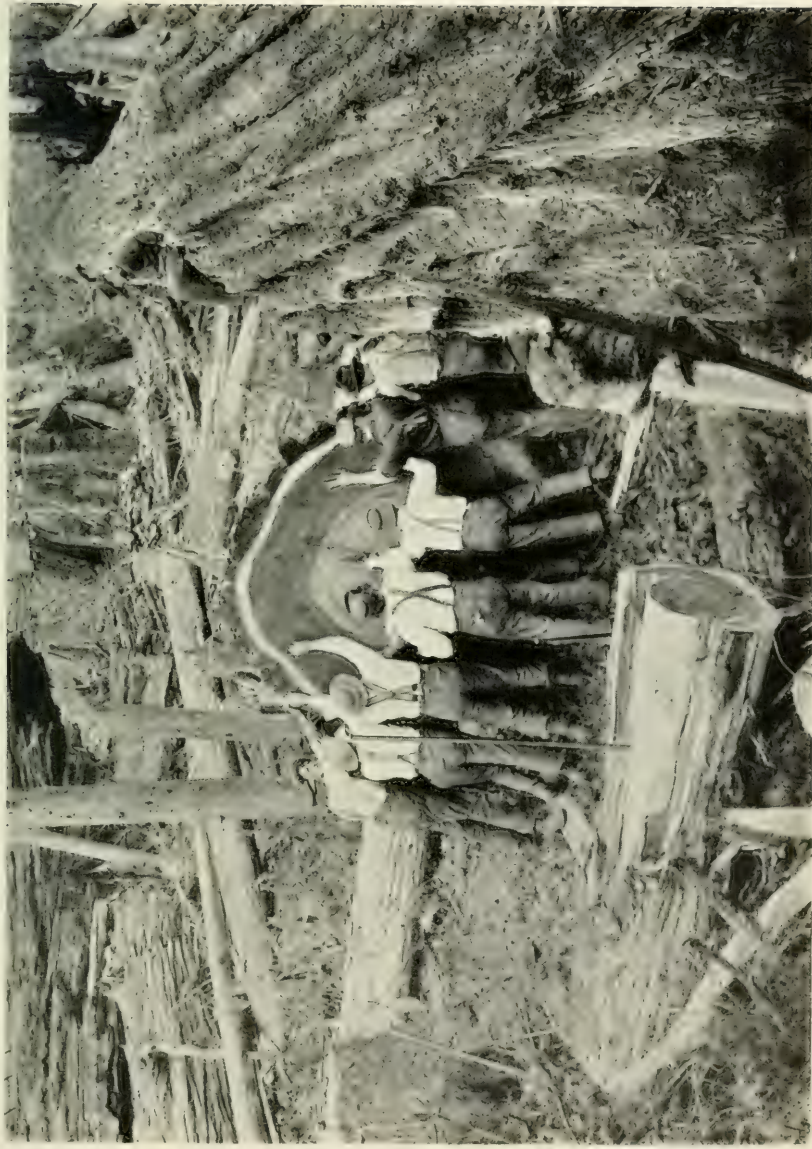
WACKER, CHARLES H.
WALKER, JAMES R.
WALKER, WILLIAM B.
WALLER, EDWARD C.
WEBSTER, GEORGE H.
WHITE, A. STAMFORD
WHITEHEAD, W. M.
WILSON, MRS. E. C.
WILSON, M. H.
WOODCOCK, LINDSAY T.

DECEASED.

BIRKHOFF, GEORGE, JR.



GETTING DOWN THE CALIFORNIA REDWOOD TRUNK SPECIMEN FOR THE MUSEUM
COLLECTION REPRESENTING NORTH AMERICAN FORESTRY.



GETTING THE "WHEEL SPECIMEN" OF CALIFORNIA REDWOOD OUT OF THE FOREST FOR THE MUSEUM COLLECTION REPRESENTING NORTH AMERICAN FORESTRY.



PART OF THE CRATED SPECIMEN OF CALIFORNIA REDWOOD SHOWING THE SIZE OF THE
BOARDS SECURED FOR THE MUSEUM COLLECTIONS REPRESENTING
NORTH AMERICAN FORESTRY.

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